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INTERIM REPORT

OF THE

BEEF/FORAGE EXTENSION

DELIVERY STRATEGY

TASK GROUP

Manitoba
Agriculture

87-03609/

INTERIM REPORT OF THE BEEF/FORAGE EXTENSION COMMITTEE

INTRODUCTION

In January 1986, a steering committee of T. Pringle, C. Cranston, A. Dickson, J. Neabel and F. Baker discussed the need to review existing Manitoba Agriculture extension programs with a view to developing beef and forage management extension programs, and their delivery, in keeping with the present day needs of Manitoba beef producers.

From these discussions a working committee consisting of F. Stewart, G. Therrien, D. Campbell, J. McKinnon, G. Lahaie and F. Baker, the latter two as co-chairmen, was appointed to conduct a study, in three phases, which would:

1. Thoroughly review and evaluate existing Manitoba Agriculture extension programs relating to beef and forage production.
2. Develop beef/forage management programs that could be packaged for delivery to individual farmers.
3. Develop a delivery strategy for new and existing beef and forage extension programs.

The working committee was asked to submit an interim report which reviewed and evaluated existing Manitoba Agriculture extension programs and outlined the procedures for conducting phases two and three of the study.

In conducting the first phase of the study the committee contacted many people with diverse interests in the beef and forage sectors of agriculture, including ag. reps.; land reps.; livestock, crop and management specialists; and producers and university and agribusiness personnel.

PROFILE OF MANITOBA BEEF PRODUCERS

To develop an extension program that is relevant and effective, it is necessary to define the characteristics of Manitoba beef producers, and the committee attempted to do this using data from the 1981 census and 326 responses to a questionnaire sent to 1,000 beef producers selected at random from a list of participants in the Manitoba Beef Stabilization Program.

In 1981 there were 389,363 beef cows in Manitoba on 12,004 farms, averaging 32 cows per farm. The majority of beef producers, 4,529 or 37%, had herds with 18-47 cows, while 21% had more than 48 cows per herd and accounted for 55.3% of the beef cow population.

In 1985, 4,908 producers with a total number of 26,587 cows and an average of 54 cows per herd were enrolled in the Manitoba Beef Stabilization Plan. Fifty-three percent of the producers had herds of over 50 cows.

In 1981, Manitoba producers with sales over $2,500 where beef was the main product (5,679 out of 14,757 cattle farms) farmed a total land base of 4,554,269 acres, of which thirty-one percent was in crop, 8.1% was improved pasture and 10% was in tame hay. It is worthy of note that 47% of the farms with beef cattle had between 240 and 759 acres of improved land (see Table 4), giving a total of 46.4% improved land.

Of the 14,757 farms with sales over $2,500 reporting beef cattle on their farms, 38% indicated that beef production was their main enterprise. This group accounted for approximately 57% of the total beef cattle population. Thirty-five percent of the farms, accounting for 20% of the beef cattle population, were classified as grain producers.

The majority (59%) of Manitoba cattle producers with sales over $2,500 were over 49 years of age (Table 5) with a significant number over 60 years old.

Thirty-two percent of cattle producers, where beef production is a major enterprise, reported off-farm employment with an average off-farm employment period of 147 days per year. In comparison, in 1971 21% of cattle producers reported working off-farm for an average of 114 days per year.

In summary, the "average" Manitoba beef producer has a herd of 32 cows with the majority having between 18 to 47 cows. In contrast, producers registered with the Manitoba Beef Commission have an average of 54 cows, which may indicate that stabilization programs are favoured more by larger than smaller herd size operators. Most of the beef is produced in specialized beef units, yet 37% is derived from mixed farms where beef is either a secondary or supplementary enterprise. The majority of beef producers are over 45 years of age. One out of three producers works off-farm for approximately 7 months of the year.

METHODOLOGY

The committee reviewed existing beef/forage extension activities in two stages:

A. Inventory
B. Evaluation

A. INVENTORY

The beef and forage extension programs and the integrated beef/forage activities of the Department are many and varied.

The committee attempted to rationalize these programs and activities in their relationship to the major components of an industry whose goal is that of converting generally unmarketable roughages to a marketable red meat commodity, and identified the major components as:

1. roughage or forage production;
2. nutrition or utilization of forage;
3. genetic improvement of the converting animal;
4. husbandry or general management of the converting animal;
5. marketing of the converted commodity.

B. EVALUATION

The committee spent considerable time exploring several methods of evaluating the effectiveness of past and current extension programs and activities. One involved the measurement of changes in productivity over an extended period of time, rationalizing that increases in productivity could be attributed to the adoption of technology, which could be attributed to effective Departmental extension activities creating an awareness of the benefits of technology. This requires a good data base, which unfortunately was not readily available or reliable. It assumes that awareness is created only by the extension activities and disregards the influence of market conditions, economics, climate, etc. It also disregards the extension activities of other agencies.

Other avenues were explored before the committee decided that, because of time constraints, the best method would be to determine how staff and beef producers viewed the effectiveness of our extension activities. Accordingly, both groups were surveyed with a

questionnaire designed to determine:

- the degree of adoption of certain management practices
- the identity of any constraints to adoption of technology
- the degree to which certain Departmental programs are utilized
- the identification of strengths or shortfalls of these programs
- the perception of the effectiveness of extension methods in providing technical information

The staff survey included all Agricultural Representatives, Regional Specialists & Technicians involved in beef and forage programs, Crown Lands District Land Representatives and beef or forage related Agri-Food Project Managers for a total of 97. Forty (40) replies were received.

The producer survey consisted of 1,000 randomly selected producers registered with the Manitoba Beef Commission. Three hundred and twenty-six (326) replies were received.

The survey findings, along with reference materials and other selected data or information, such as the 1981 census, formed the basis for the evaluation, analysis, comments and recommendations presented in this report and are included in the appendix.

FORAGE EXTENSION

Forage is the basis of the cattle industry and forage extension is a major activity in all regions of Manitoba.

Forage extension resources of Manitoba Agriculture include seven specialist positions plus four technicians to supplement district and provincial programs. In 1985/86, activities included a total of approximately 9,000 forage contacts made with producers by extension staff. These included: office and farm contacts, 176 demonstrations, meetings and tours, activities with 12 regional producer associations, plus promotion of technology through newspapers, newsletters, radio, TV and video. Manitoba Agriculture also provides a feed and soil testing service to ensure adequate nutrition of both forage and livestock.

Adoption of Technology

The producer survey provides an indication of the level of adoption of forage technology and the success of forage extension activities.

Producers were asked what practices they used in their farm operations and the level of importance of each practice.

Table 1

Forage Mgmt. Practices	% Utilization by Herd Size (50 Cows	50-100 Cows	100 Cows)	*Degree of Importance
Use Rec. Varieties	67%	82%	74%	3.3
Inoculate Legumes	66%	75%	79%	3.2
Fertilize Annually	48%	52%	57%	3.1
Fertilize to Soil Test	24%	20%	29%	2.7
Use Forage in Crop Rotation	70%	67%	71%	3.1
Use Rotational Grazing	56%	58%	57%	3.0
Keep Records	30%	28%	36%	2.7

*Importance: 4=very important, 3=important, 2=somewhat important, 1=not important

Adoption of technology appears to vary with the size of the forage/beef enterprise and the labor requirements. Some observations and comments prompted by the survey are as follows:

1. The use of recommended forage varieties and legume innoculation was a regular practice on only 66% of the smaller farms as compared to 74-82% on the larger beef farms; possibly indicating that, in spite of the high importance rating given by both groups, it is of a lower priority on smaller farms than larger ones.
2. Forty-eight percent of the smaller producers and 54% of the larger operators fertilized forage stands on a regular basis. This jibes well with the 40% estimated by extension staff. Again, there was a difference between the importance rating given to and the level of adoption of this practice. Producers with limited operating funds may spend them on other crops and may be unaware of the economic benefits of proper forage fertilization.

   Both producers and staff indicated the relatively low use of soil testing to determine fertilizer requirements. The importance of this practice was rated by producers as 2.6 as compared with 3.0 for forage fertility.
3. The importance of forages in crop rotations was rated highly by most producers (3.0-3.2) indicating that perhaps a stand life of 5 years

could be expected to yield most of the benefits of having forage in a rotational system. But the survey answers indicate that forage fields are renovated on an average of 7 years for the larger and 5-7 years for the smaller operators. This may be because some of the larger beef enterprises are in areas where cropping alternatives are relatively limited (i.e. Northern Interlake) and some smaller producers are in crop areas where beef is a secondary enterprise.

4. Rotational grazing and planned grazing also rated highly in importance, with most producers indicating they used some form of pasture rotation. Staff, however, indicated only 24% of producers used a planned grazing system. Some producers perhaps consider rotational grazing as having more than one pasture and sometimes moving the herd between them. However, since 72% of the producers use unimproved pasture there may be a limited awareness of the potential returns from a well managed pasture system utilizing tame pasture grazed in rotation with native pasture.
5. Record keeping can be the key to improved profit, yet most producers consider it of little importance. Only 30% of the smaller producers kept forage records and only 36% of the larger producers considered it important.
6. Tame hay provides 53-61% of the beef herd winter forage requirements, with smaller operations depending upon this source more than larger ones. It is of interest to note that crop residues provide 12.1% of the requirements.

Table 2

Forage Harvesting Systems	%	Source of Winter Feed Supply	%
Large Round Bales	68.5	Tame Hay	58.4
Large Square Bales	6.2	Native Hay	16.8
Small Bales	17.2	Annuals	8.3
Loose Hay	2.9	Crop Residues	12.1
Silage	5.1	Other	0.9

The large round baler is used by 68.5% of the respondants to this survey; an indication of the degree of adoption of this 15 year old technology. Although this equipment has reduced the labor requirement of forage harvesting there are limitations in that

harvesting and feeding losses can be high if an efficient forage system is not used.

Impact on Forage Extension Programs

1. There is considerable scope for increased utilization of all aspects of forage technology. No one approved management practice is being fully utilized.
2. Forage improvement can be obtained by fertilizing according to soil test recommendations and there is a need for more information and demonstrations which will show the economic benefits of this practice.
3. The economic benefits of the use of forages in crop rotation systems need to be further promoted so as to improve profitability of both the crop and beef enterprises.
4. There are great opportunities for increased returns from well managed pasture systems, particularly with the advent of new fencing technology. A planned pasture system utilizing pastures of varying quality, such as both native and tame, can improve returns both to the forage land and livestock.
5. The maintenance of field production records should be given more emphasis.
6. Since the majority of the producers use the round baler, forage management should be stressed to reduce field losses as well as losses during storage and feeding.

GENETIC IMPROVEMENT PROGRAMS

Manitoba Agriculture is a leader in beef genetic improvement programs and in producer participation. Of the 60,000 calf records processed on the Federal/Provincial ROP Program, over 28 percent came from Manitoba herds, even though Manitoba has only 11 percent of the Canadian cattle population. The Federal/Provincial ROP Program is integrated with and extended through other programs; bull test stations, the "Triple P" program, the Premier Breeder Awards, Beef Consult, various Agri-Food Projects, and less formally, through regional and local demonstration projects set up by specialists and agricultural representatives.

The following is a review and evaluation of the programs offered by Manitoba Agriculture relating to genetic improvement. For more detailed information refer to appendix.

A. Federal/Provincial Record of Performance Program (ROP)

The ROP program represents a significant commitment by Manitoba Agriculture to the beef industry. Three major areas of staff involvement include:

1. Coordination of program.
2. Extension activities related to program.
3. Provision of weighing services.

This commitment has benefited the beef industry as shown by the increase in the weaning and yearling weights of ROP calves over the last 23 years. In one 50 cow herd, this has resulted in an annual increase in revenue of approximately $3,600.

How successful has the program been in gaining acceptance by Manitoba beef producers? When surveyed, producers indicated that approximately 30 percent utilize a recording program for genetic improvement of their herd. Of those using a program, 65 percent were enrolled on a formalized program such as ROP while 35 percent used their "own" system. Utilization of ROP has not increased significantly over the last ten years. The number of herds enrolled over this period averages 410 (range 356 to 451). The number of calves weaned averages 15,672.

The question facing Manitoba Agriculture becomes: "Why does a program with a proven ability to increase profit meet with such a limited acceptance from its beef producers?" When surveyed, producers who had not used ROP or a similar program, responded overwhelmingly that they:

1. Saw no need or value for the program.
2. Found the program too time-consuming or too much work.

Secondary responses included:

1. Too costly.
2. Lacked proper facilities.

When similarly surveyed, Manitoba Agriculture staff stressed that utilization of ROP was constrained by:

1. Lack of facilities.
2. Lack of scales.

3. Too much paperwork involved for beef producers.

Few staff members sensed the major reason why producers do not use ROP or a similar program. It seems that staff assume producers realize or see the benefits of the program and that technical problems prevent them from enrolling. In fact, producers stay away from performance testing because they do not realize or perceive its benefits. If the use of ROP is to increase, major emphasis must be placed on educating producers as to the benefits of a performance recording program (i.e. 100 pound increases in weaning weights over ten years).

B. Bull Test Stations

The aim of the province's bull test stations is to promote the use of top-performing and reproductively superior bulls in Manitoba's commercial and purebred beef herds.

In 1986, there were seven recognized test stations including: Douglas, Blonde d'Aquitaine, Limousin, McKnight's, Red Power, Interlake and the Northwest. In all, 307 consignors tested 1,042 yearling bulls. The growth and popularity of performance testing breeding bulls is evident when one considers that when initiated in the early 1960's, approximately 30 consignors tested 120 bulls at one test station.

The number and quality of the bulls entering test stations have increased greatly in the last 20 years. In 1965, the average daily gain (pounds/day) was 2.83, while in 1970 it had increased to 3.46. In 1985, the average daily gain had increased to 3.59 pounds/day.

Each test station is operated independently by producer associations. Manitoba Agriculture staff assisted each station by providing technical information on performance testing and supervising and assisting with weighing of the animals. Bull test stations provide staff with a variety of extension opportunities and allow for the transfer of technology.

What are the constraints to increasing the use of performance tested bulls in the future? Manitoba beef producers have indicated, in the survey, the following with regards to station tested bulls:

1. A bull's performance record (i.e. ROP and bull test station performance) was a very important aspect to consider when buying a herd sire.
2. As a source of quality herd sires, bull test stations ranked very close to the number one rated source, the purebred cattle producer.
3. When they buy their herd sires, the vast majority buy from the purebred producer, not the test stations.

If test stations are regarded as a quality source of bull power, why are they not utilized by more cattlemen when purchasing bulls? Four reasons emerged from the survey:

1. Producers bought from the purebred breeder because they could see the herd where the bull originated from.
2. Many felt that station tested bulls were overfed and believe that this hurt their reproductive performance.
3. Only half of those surveyed (49 percent) use yearling bulls in their breeding program.
4. Many felt that utilization of a yearling bull was not that important to the profitability of their operation.

It seems that the major obstacle to increased use of station-tested yearling bulls is the perception on the part of the producer that yearling bulls will not work in their breeding program. Manitoba Agriculture should stress the genetic benefits of utilizing yearling bulls, as well as the proper management necessary to maintain a long and successful breeding life.

The province's bull test stations and/or the National Advisory Board for Beef Cattle Improvement should examine their feeding practices. The perception of overfed bulls, whether true or not, will continue to keep producers away.

C. Artificial Insemination

Artificial insemination is widely recognized as the most practical and rapid method available for beef producers to improve the genetic base of their herd. One need only look at its influence in the dairy industry over the last 20 years to see its potential in the beef industry.

Manitoba Agriculture promotes the use of artificial insemination in the beef industry through:

1. Manitoba Semen Distribution Centre.
2. Licensing of A.I. technicians throughout province.
3. Two Annual A.I. Schools in Winnipeg and Brandon.
4. The "Triple P" program.
5. Extension activities of staff.

The survey indicates that A.I. is currently utilized in 18 percent of Manitoba's herds. However, it should be noted that A.I. is used by 63 percent of purebred producers, while only 10 percent of commercial producers utilize this practice.

Commercial cattle producers indicated that their opinion of A.I. as a means of herd improvement was similar to that of purebred producers. Both groups tended to feel it was the most superior method available. However, commercial producers were of the opinion that it was:

1. Only for purebred breeders.
2. Impractical in their herds.
3. Time consuming.
4. They lacked proper facilities.

This may indicate that, while realizing the benefits of A.I., producers believe it to be too much work or that the benefits are not worth the time and effort involved.

If A.I. usage is to increase in the commercial sector of the beef industry, this misconception must be rectified. Steps to follow may include the following:

1. Promotion of benefits of A.I., particularly performance tested sires.
2. Tie in performance testing with an artificial insemination program designed to promote the increased use of both (see "Triple P" comments).
3. Improve the availability of training in A.I. by increasing the number of courses, holding them in areas where technician services are limited and offering update courses.

D. "Triple P"

"Triple P" is known as Manitoba's Young Purebred Beef Sire Progeny Proving Program. Initially it was designed to identify and promote the use of Manitoba's genetically superior young purebred beef sires. In 1986, 41 young Manitoba bulls were offered as test sires. The progeny proofs obtained on these bulls have varied from poor to excellent. Those bulls with excellent proofs will benefit their owners, and if widely utilized, Manitoba's beef industry. However, "Triple P" does not promote test sires once a proof is obtained. This is left to the owner, who in many cases may not have the resources for widespread promotion. The value of the program in getting "proven" superior sires utilized in the provincial herd is thus open to question.

Utilization by producers has varied from a low of 30 herds enrolling 734 cows in 1980 to 68 herds enrolling 1,749 cows in 1986. Since its inception, there has been a change in the type of breeder utilizing its bulls. Today, the vast majority are commercial producers with approximately 50 percent doing their own breeding. The dramatic increase in utilization seen in 1985 and 1986 can be attributed to:

1. Quality of bulls offered to producers.
2. Promotion of the program and A.I. in general by MDA staff.

This indicates two important points:

1. Commercial cattlemen will use A.I.
2. MDA promotion can increase the use of A.I. by commercial cattlemen.

If the department is committed to increasing the use of A.I. in the beef industry, now may be the ideal time. The "Triple P" program may be redeveloped to:

1. Promote the use of A.I. in all sectors of the beef industry.
2. Serve as a source of inexpensive quality semen (free or discounted).
3. Promote crossbreeding (imperative).
4. Promote performance testing.
5. Promote Manitoba bulls.

Such a concentrated effort will have positive benefits for the industry.

BEEF EXTENSION

The importance of the beef industry to Manitoba is recognized by the scope of beef extension activities throughout the province. Seven regional specialists, 5 technicians and 3 central specialists provide producers with technical support and information through a variety of activities which include individual counselling, on-farm demonstrations, regional demonstrations, meetings, tours, feed analysis and ration balancing services and the promotion of technology and good management practices through newspapers, newsletters, radio, TV , etc. Regional staff alone made 12,217 contacts with beef producers in 1985/86.

Beef producers are often criticized for being slower than their dairy and swine counterparts to adopt new technologies. Considering the diversity of the beef industry this criticism may not be valid.

Tables 3 & 4 indicate the level of adoption of recommended management practices and the degree of importance accorded to these practices by beef producers in the survey already alluded to on several occasions in this report.

The data indicates some striking features regarding the level of the adoption of technology by beef producers. It appears that herd size is correlated to the degree of adoption of technology. Without exception, producers with less than 50 cows utilize each of the selected management practices less than producers with 50-100 cows and utilization tended to increase as herd size increased 100 over cows. One is tempted to conclude from this that as beef production assumes a greater economic importance in an enterprise, the level of adoption of modern beef production practices increases. In line with this assumption is the indication from the data that the level of adoption of technology was higher among purebred breeders than commercial producers, with the exception of commercial producers having more than 100 cows.

Tables 3 & 4 also indicate that the extent to which management practices are adopted is related to how they are perceived to be of economic benefit to the enterprise. Highly rated practices such as maintaining a yearly calving interval, herd sire evaluation, vaccination programs, warble control and castration were highly utilized, whereas

TABLE 3. UTILIZATION OF BEEF TECHNOLOGY BY MANITOBA PRODUCERS.

Beef Management Practices	% Utilization By Herd Size				% Utilization
	Less Than 50 Cows	50-100 Cows	Greater Than 100 Cows	Combined Ranking	As Perceived By Staff
Herd Sire Evaluation	52	60	81	59	14
Pregnancy Checking	40	48	49	44	29
Cull Open Cows	66	80	74	73	NA
Yearling Calving Interval	91	94	95	93	NA
Calve Heifers As 2 Yr. Olds	80	90	83	84	NA
Utilize Yearling Bulls	41	53	67	49	NA
Heat Synchronize	4	3	7	4	3
Cross-breed	56	74	79	66	NA
Vaccination	80	92	93	87	83
Growth Implants	26	51	58	40	24
Fly Control	76	79	77	77	61
Warble Fly Control	66	85	90	77	NA
Castrate	87	94	91	90	78
Dehorn	55	61	70	59	71
Keep Records	45	59	65	53	NA
AVERAGE	57	68	72		

TABLE 4. IMPORTANCE OF SELECTED MANAGEMENT PRACTICES TO PROFITABILITY OF BEEF OPERATION

(4 = very important; 3 = important; 2 = somewhat important; 1 = not important)

Beef Management Practice	Ranking By Herd Size			
	Less Than 50 Cows	50 - 100 Cows	Greater Than 100 Cows	Combined Ranking
Herd Sire Evaluation	3.5	3.5	3.7	3.5
Pregnancy Checking	3.0	3.0	2.7	3.0
Cull Open Cows	3.4	3.3	3.3	3.3
Yearling Calving Interval	3.7	3.7	3.7	3.7
Calve Heifers as 2 Yr. Olds	3.3	3.4	3.4	3.4
Utilize Yearling Bulls	2.3	2.4	2.6	2.4
Heat Synchronize	1.5	1.3	1.4	1.4
Cross-Breed	2.9	3.0	3.3	3.0
Vaccination	3.6	3.8	3.9	3.7
Growth Implants	2.2	2.7	2.9	2.5
Fly Control	3.4	3.3	3.3	3.3
Warble Fly Control	3.4	3.5	3.7	3.5
Castrate	3.5	3.4	3.6	3.5
Dehorn	3.1	3.0	3.8	3.2
Keep Records	3.0	3.1	3.4	3.1

heat synchronization and growth implants received poor ratings and were poorly utilized.

Certain practices, however, such as record keeping, utilizing yearling bulls and pregnancy checking were rated as fairly important for profitability, but were not widely utilized. Other practices such as cross-breeding, culling open cows, calving heifers as two-year olds, fly control and dehorning were rated similarly, but were utilized to a much greater extent. We conclude from this that management practices must be perceived as providing an economic benefit before they are adopted. For example, cross-breeding and pregnancy checking were both rated as important factors in the profitability of a beef operation. Yet pregnancy checking, which gives no immediate, visible economic return but results in a cash outlay was utilized by 44% of the respondents. Cross-breeding, which can increase the value of a calf by $100 or more, was utilized by 66% of total respondents and 76% of the commercial producers.

Replies from the producer survey when compared to those from the staff survey indicate some apparent differences in perception between producers and staff. This is in accord with Blackburn's conclusion (see Appendix J, page 11) that a difference of perception often exists as to the importance and use of information between those who provide the information and those to whom it is directed.

IMPLICATIONS FOR BEEF EXTENSION PROGRAMS

A. The fact that the level of adoption of proved management practices in beef production is apparently relatively low among producers with herds of less than 50 cows, and the fact that such producers account for 40% of the province's beef producers and 33% of the beef cow population, represents a major challenge to Manitoba Agriculture.

Extension programs should be directed to this large group of producers, demonstrating that even where beef production is a secondary enterprise the adoption of certain management practices can greatly increase profitability. More emphasis needs to be placed on those profitable practices, such as record keeping and pregnancy testing, that do not show an immediately visible or obvious economic return.

B. Care must be taken to see that recommended techniques and practices are properly explained, demonstrated and understood. The fact that 59% of producers in the survey said they regularly used herd sire evaluations whereas staff felt that only 14% did, may indicate a difference in perception of the level of adoption of this practice. It may be that the producers idea of herd sire evaluation is of a much simpler process than the comprehensive reproductive examination that staff know it to be.

A good example of thoroughly demonstrating procedures and practices and their economic benefits is the Agri-Food Heifer Project (continuation of AgroMan Project) at the Douglas Bull Test Station. The demonstration and the information generated by this successful project have been largely responsible for the widespread adoption by Manitoba producers of the practice of breeding heifers as two-year olds.

PRODUCER FINISHING OF BEEF CATTLE

EXTENSION ACTIVITIES

The Department has identified the concept of producers feeding their calves through to slaughter as advantageous to the province's beef industry, and has decided to actively promote the concept. Promotional (extension) activites include feedlot demonstrations, seminars and clinics, farm meetings, individual counselling and the presentation of information through the various types of media. The most effective force, however, in promoting producer finishing has been the establishment of the Manitoba Beef Commission and its Beef Stabilization Plan.

UTILIZATION AND CONSTRAINTS OF THE EXTENSION ACTIVITIES

The following table is compiled from the producers' survey and indicates more finishing to slaughter occurs in the larger beef enterprises than the smaller ones.

	Size of Operation		
	<50 Cows	50-100 Cows	>100 Cows
% of Producers Finishing	48	59	66
% of Calves Finished	77	77	80

The economic advantages offered by the Beef Stabilization Plan were cited as the main reason for deciding to finish (65%). The availability of feed influenced 18% of producers to finish.

The reason given for not finishing were lack of facilities (35%), perceived poor economics of the concept (27%), lack of feed grains (10%) and lack of experience, knowledge or time (10%).

The staff survey indicated that they felt the reasons for producers not finishing were lack of facilities (25%), lack of skills and experience (25%), economics, cash flow and available credit (20%) and cost and availability of feed (16%).

IMPLICATIONS

The biggest difference between producers and staffs responses on this subject was in the perception of the producers knowledge and experience. This a bigger constraint than producers will admit.

It is interesting to note too that the economics of the concept was given as a major reason for both finishing and not finishing.

RECOMMENDATIONS

1. In view of the apparent influence to date of the Manitoba Beef Commission in promoting the concept of producer finishing and the high percentage of producers who are enrolled in the Beef Stabilization Plan and, therefore, in regular contact with the Commission, the extension potential of the Commission should be fully exploited.
2. In extension activities more emphasis should be placed on explaining the benefits of producer finishing.
3. Extension activities should emphasize the development of low cost facilities for beef finishing.
4. New and existing technology in beef finishing should be promoted on the basis of its cost effectiveness for the producer.

NUTRITION

Proper nutrition is a key factor in beef production. A successful feeding program is based on rations that are balanced to meet the animals requirements and formulated according to the nutrient content of each of the available feedstuffs.

A. DEPARTMENTAL SERVICES

1. The provision of laboratory analysis of feedstuffs and the assistance of two nutritionists in utilizing the results of analysis in developing appropriate feeding programs and advising on all aspects of nutrition.

Extent of utilization of these services:

	Samples Analyzed For Beef Producers	Detailed Feed Recommendations
1983/84	1,650	650
1982/83	1,700	700
1981/82	2,100	1,000

2. Regional staff have as significant an input into ration formulation and feeding recommendations as do central staff, particularly as regards the utilization of feedstuffs not submitted for lab. analysis.

B. DEPARTMENTAL EXTENSION ACTIVITIES

1. The services of the feed lab. and central and regional staff are bolstered by factsheets and other publications relating to nutrition, produced and distributed by MDA, as well as seasonally appropriate media releases.
2. Under the Agri-Food Agreement five Feedlot Finishing Demonstrations have been conducted and their activities and results widely publicized in provincial and local media and producer newsletters.
3. Nutrition is also discussed at farm and regional meetings in conjunction with forage management, herd health and beef finishing.

C. PRODUCER ATTITUDES

1. Only 12% of producers surveyed feed tested on a regular basis, 33% feed tested only when problems arose and 55% never feed tested.
2. There appears to be a direct relationship between the size of cow herd and the use of feed analysis, with larger enterprises using the service more than smaller ones.

	Feed Test On A Regular Basis	Feed Test Only When Problems Arose	Never Feed Test
Less than 50 cows	7%	29%	64%
50-100 cows	15%	35%	50%
100+ cows	23%	41%	36%

3. Nearly all producers who feed test on a regular basis indicated they utilized the results to formulate balanced rations. Producers who feed balanced rations indicated the source of information was:

   Self 52%
   Industry 26%
   MDA Staff 13%
   Feed Test Lab. 9%

4. Asked for comments on the services offered by the Feed Testing Laboratory, 55 producers rated the services as adequate or better, while 12 indicated service as inadequate or less. Fourteen producers commented results were too slow in being returned.
5. One hundred and twenty-nine producers who do not feed test indicated they saw no need for it, 16 were unfamiliar with the service, and 11 indicated it was too costly.
6. Asked how they determined the type and quantity of feed for cattle if they did not feed test, 91 producers cited experience, 44 by condition of cattle, 22 by eye balling, 21 fed free choice, 19 by harvest and storage conditions, 13 by the amount of feed on hand, and 10 by information from feed companies, pamphlets, University of Manitoba, Manitoba Agriculture, etc.
7. Staff indicated that turnaround time was the most significant constraint to feed testing. Staff also indicated that more promotion of balanced rations and feed testing, stressing the economic benefits, was required.

SUMMARY

Producer comments indicate that there is a lack of awareness of the value of feeding balanced rations.

Feed testing is seen as a problem-solving tool to be utilized when feeding problems occur.

Producers who feed test and/or receive feeding recommendations generally like the service, although turnaround time appears to be a concern.

Producer and industry-formulated rations dominate. The Department should be concerned as to whether producers have sufficient knowledge and skill to interpret analyses and formulate rations.

RECOMMENDATIONS

1. Future extension efforts should place more emphasis on economic benefits of feeding balanced rations, including examples of economic implications of improper or unbalanced rations.
2. The services of the Feed Analysis Lab. and MDA staff in the proper utilization of feedstuffs should be more actively promoted.
3. MDA should explore ways to reduce the time lag between the submission of feed samples for analysis and the return of information to the producer; i.e. mobile services, NIR and fee discounts during slack periods.

EFFECTIVENESS OF VARIOUS SOURCES OF INFORMATION

Farmers have access to a wide variety of information. To determine the most effective methods of transferring technology, producers were asked to rate, in order of effectiveness, the various sources of information. In general, all producers, irrespective of size, ranked various sources of information in relatively the same order (Table 5).

They rated newspaper articles and Departmental contacts highly, while grass roots and video cassettes were not seen as effective sources of information. It should be noted, however, that both grass roots and video cassettes are not as readily available to the general public and, in addition, require the availability of specialized equipment.

A significant difference was observed between producers with over 100 cows and smaller size units. Larger farm units rated all sources of information higher than smaller units and in addition, written material, (i.e. newsletters, factsheets, and pamphlets) extension tours and field days were highly regarded by farmers with herds over 100 cows.

INTERPRETATION

The results obtained from the questionnaire provide an insight into what farmers perceive as the most effective methods of obtaining information. Larger size operations place greater importance on all sources of information than do smaller ones.

This study confirmed earlier findings obtained by Dr. Don Blackburn, Professor, Department of Rural Extension Studies, Guelph, Ontario. Both studies rated extension staff as well as publications, newsletters and factsheets relatively highly as information sources.

Delivering information to producers is much more effective than making the information available and expecting producers to actively seek it out. Newspapers and newsletters delivered to the producer's home, and personal contacts, are much more effective than technical information stored in Ag. Rep. offices and meetings that require time and effort to attend.

Since farmers cited extension workers and written material as an important source of information, there is a continuous need for extension staff to update their technical expertise and maintain personal contact with beef producers. Production technology and business management techniques must be integrated at the farm level to optimize profit. This is essential to maintain an effective balance between innovation, technology and profitability.

TABLE 5

PRODUCERS' OPINIONS ON THE EFFECTIVENESS OF VARIOUS EXTENSION METHODS IN PROVIDING BEEF AND FORAGE MANAGEMENT INFORMATION

METHOD	ALL PRODUCERS	SEGREGATED BY SIZE OF HERD: LESS THAN 50 COWS	50-100 COWS	100+ COWS	SEGREGATED BY TYPE OF OPERATION: PUREBRED	COMMERCIAL
Newspaper Articles	3.02	2.99	3.00	3.16	3.06	3.01
1 on 1 with Technician	2.98	2.92	2.94	3.27	3.14	2.95
1 on 1 with Ag. Rep.	2.95	2.94	2.93	3.06	3.03	2.93
1 on 1 with Specialist	2.93	2.89	2.85	3.32	3.09	2.91
Newsletters	2.86	2.68	2.99	3.10	2.82	2.87
Fact Sheets, Pamphlets	2.80	2.80	2.77	2.89	2.74	2.81
Ag. Office Visit	2.78	2.75	2.83	2.75	2.99	2.75
Farm Meetings	2.71	2.60	2.82	2.75	2.76	2.70
On Farm Demonstrations	2.70	2.65	2.71	2.83	2.85	2.67
Regional Demonstrations	2.63	2.53	2.71	2.75	2.78	2.60
Tours, Field Days	2.62	2.60	2.47	3.16	2.79	2.59
Home Study Courses	2.46	2.50	2.37	2.59	2.40	2.47
Video Cassettes	1.94	1.85	2.00	2.05	1.88	1.95
Grassroots (Telidon)	1.85	1.81	1.83	2.06	1.71	1.87
Average Rating	2.65	2.60	2.65	2.83	2.71	2.64

NOTE: Rating scale of 1 to 4 with 4 being very effective and 1 not effective.

INDEX TO APPENDIX

A. Copy of a questionnaire sent to all extension people in the department who were involved with beef and forage production and included livestock and grassland specialists, crown lands representatives, farm management specialists and regional engineers. Of the ninety-six questionnaires sent, 37 were returned.

B. Summary of returned questionnaires.

C. Copy of questionnaire sent to 1,000 randomly selected beef producers enrolled in the Manitoba Beef Stabilization Plan.

D. Summary of producer's responses to questionnaire.

E. Statistics from 1981 census. Tables 1 - 12.

F. Letter from Joe Dunsmore, General Manager, Manitoba Beef Commission, with analysis of Manitoba Beef Commission contracts, final resume of 1985.

G. Letter from Harold Baker, Professor of Extension outlining lack of extension evaluation idea.

H. Where farmers get information by Donald Blackburn.

I. Genetic Improvement Programs by John McKinnon.

MANITOBA AGRICULTURE

APPENDIX A

BEEF-FORAGE TECHNOLOGY ADOPTION
AND EXTENSION PROGRAM EVALUATION

Please assess the following programs and activities in regards to their effectiveness in assisting producers to adopt new technology.

BEEF NUTRITION

1. Feed Testing

a) What % of the beef-producers you work with use Feed Testing on a regular basis? _____.

b) Are there any strengths _____ or limitations_____to this program?

c) Please explain: _____

_____

_____

_____

_____

_____

2. Ration Formulation

a) What % of the beef producers you work with formulate balanced rations for beef herd growth, and maintenance on a regular basis? _____.

b) Of the balanced rations formulated for the above producers, what % are formulated by:

Producer..... _____

Feed Lab ..... _____

Regional Extension Staff..... _____

Industry ..... _____

Total 100%

c) What suggestions do you have to encourage the use of balanced ration formulation based on feed test? _____

_____

_____

_____

_____

_____

GENETIC IMPROVEMENT

1. Performance Testing

a) What % of the beef producers you work with use performance data for genetic improvement of their herd? _____.

b) Of the beef producers you work with, what % use the following performance recording systems?

Federal Provincial ROP ..... _____

Breed Association ..... _____

Farm Test ..... _____

None ..... _____

TOTAL 100%

c) Is the general adoption of performance testing programs sufficient _____, or are there any constraints to the increased use of such programs? _____.

Please explain: _____

_____

_____

_____

_____

_____

d) Do you have any suggestions to encourage the increased use of Federal-Provincial R.O.P? _____

_____

_____

_____

_____

_____

2. Artificial Insemination (A-I)

a) What % of the beef producers you work with use A-I as a means of herd improvement? _____.

b) Of these, what % are:

Commercial producers _____.

Purebred Producers _____.

Total 100%.

c) Where A-I is used, who does the inseminating(%).

Technician _____.

Producer _____.

Veterinarian _____.

Neighbour _____.

Total 100%.

d) For these producers you work with, what is the source of A-I sires?

PPP _____.

Commercial Stud Centers _____.

Private _____.

TOTAL 100%

Do you believe that A-I is utilized sufficiently _____; or are there any constraints to increased use? _____.

Please explain: _____

_____

_____

_____

_____

_____

e) Are there any constraints to the greater use of PPP for herd improvement?

Yes _____. No _____.

Please explain: _____

_____

_____

_____

_____

3. Bull Testing

a) of the beef producers you work with, indicate the source of herd sires (%).

Bull Testing Stations _____.

Breed Association Sales _____.

Purebred Producers _____.

Other _____.

TOTAL 100%

b) What % of these producers select their herd sires on the basis of:

Performance records _____.

Other Criteria _____.

TOTAL 100%

c) Is the practice of using performance tested bulls by beef producers for genetic improvement of their herds widespread enough _____; or are there any constraints which, if removed, would lead to greater utilization of this practice _____.

Please explain: _____

_____

_____

_____

_____

_____

MARKETING

1. Beef Finishing

a) What proportion of the beef producers you work with are finishing market calves to slaughter?: (check one)

75% or greater _____

50-75% _____

less than 50% _____

b) Please rate the effectiveness of the following extension techniques in providing information to producers on the technology of finishing beef.

	Very Effective	Effective	Moderately Effective	Not Effective
i) Demonstrations Regional				
On Farm				
ii) Meetings, Field Days, Courses				
iii) Newsletters, Pamphlets				
iv) One to One Consulting				

c) Are there any constraints to more beef producers finishing calves to slaughter?

Yes _____. No. _____.

Please explain: _____

BEEF MANAGEMENT

1. Please rate the effectiveness of the following extension techniques in providing beef management technology to producers.

	Very Effective	Effective	Moderately Effective	Not Effective
i) Demonstrations Regional				
On Farm				
ii) Meetings, Field Days				
iii) Courses (Home Study)				
iv) Videos				
v) Newspapers, Newsletters				
vi) Pamphlets, Fact Sheets				
vii) One to One Consulting:				
General				
In depth				
viii) Beef Consult				

2. For any or all of the above, do you have any suggestions which could make these extension techniques more effective in providing information on beef management technology to beef producers? _____

3. Of the beef producers you work with, what % routinely use the following management practices?

Herd Sire Evaluation	_____ %	Implants	_____ %
Pregnancy Check	_____ %	Fly Control(tags, Spray)	_____ %
Vaccination	_____ %	Castration (as calves)	_____ %
Synchronization	_____ %	Dehorning (as calves)	_____ %

FORAGE MANAGEMENT

1. Please rate the effectiveness of the following extension techniques in providing forage management technology to beef producers.

	Very Effective	Effective	Moderately Effective	Not Effective
i) Demonstrations Regional				
On-Farm				
ii) Meetings, Tours, Field Days				
iii) Courses				
iv) Videos				
v) Newspapers, Newsletters				
vi) Pamphlets/Fact Sheets				
vii) One to One Consulting: General				
In-depth				

2. For any, or all of the above, do you have any suggestions which could make these extension techniques more effective in providing information on forage technology to beef producers? _____

_____

_____

_____

_____

_____

3. Of the beef producers you work with, what % routinely employ the following forage management techniques:

		%
i)	Use recommended varieties and mixtures	_____
ii)	Innoculate legumes	_____
iii)	Fertilize annually	_____
iv)	Fertilize according to soil test	_____
v)	Include forage as part of their farm crop rotation	_____
vi)	Renovate tame forage fields as productivity declines	_____
vii)	Use a sound, planned grazing system	_____

viii) Schedule winter feed harvest:
For yield and/or quality _____.
For convenience _____.

ix) Store winter feed to maintain quality _____.

x) Locate winter feed "conveniently" rather than store it _____.

4. Of the producers you work with, what % harvest forage as:

Large Bales Round	_____
Square	_____
Small Bales	_____
Loose Hay	_____
Silage	_____
TOTAL	100%

Please indicate your extension status:

Ag. Rep. _____
Regional Specialist _____
Livestock/Grassland Tech. _____
Crown Lands Rep. _____
Agri-Food Project Manager _____
Other _____ please specify _____.

Thank you for your co-operation.

RETURN QUESTIONNAIRE BY MAY 21st TO:

MANITOBA AGRICULTURE,
ROOM 600-1495 ST. JAMES ST.,
WINNIPEG, MANITOBA,
R3H 0W9.

May 8/86/k

- STAFF SURVEY SUMMARY -

NOTE: ALL QUESTIONS INVOLVE "OF PRODUCERS YOU WORK WITH....."

A. FORAGE MANAGEMENT

1. Effectiveness of extension methods in providing forage management technology to beef producers:

   4= Very Effective.
   1= Not Effective.

   In -depth 1 to 1 consulting 3.7
   On-Farm Demonstrations 3.6
   General 1 to 1 consulting 3.3
   Meetings, tours, Field Days, etc.....3.0
   Regional Demonstrations.....2.8
   Courses, (Home Study) 2.6
   Videos 2.4
   Newspapers, newsletters 2.3
   Pamphlets, Fact Sheets 2.3

2. PRODUCERS USING FOLLOWING PRACTICES:

   - use recommended varieties and mixtures 61%
   - innoculate legumes 62
   - fertilize annually 42
   - fertilize according to soil test.....21
   - include forage as part of their crop rotation.....49
   - renovate tame forage fields as productivity declines...50
   - use a sould planned grazing system 24
   - schedule winter feed harvest for yield &/or quality....50
   - schedule winter feed harvest for convenience 48
   - store winter feed to maintain quality 29
   - locate winter feed conveniently rather than store it...61

3. HARVESTING SYSTEM UTILIZED:

   - Large round bales 73%
   - Large square bales 5
   - Small bales 11
   - Loose Hay 4
   - Silage 4

4. FORAGE EXTENSION PROGRAM NEEDS:

   3 - more on-farm demo.
   2 - more videos.
   1 - home study course.
   1 - more emphasis on economic value of technology.
   1 - more communication of what Department has to offer.
   1 - more fact sheets.

.....2

B. NUTRITION

1. Producers using Feed Testing on a regular basis.....16%

2. Producers using balanced rations on a regular basis 19%

3. Percentage of balanced rations formulated by:

Producer 27%
Feed Lab 25%
Industry 24%
Regional Extension Staff 24%

4. Nutrition area comments:

11 - too long a turnaround time for Feed Testing Lab results is a constraint.
11 - more promotion of feed testing and balanced rations required.
6 - feed testing only done when problems arise or are anticipated.
5 - need greater awareness of economic value of balanced rations.
4 - analysis not completely understood.
2 - more minor element analysis required.
2 - difficult to use information - limited on-farm feed processing equipment.
1 - detailed formulations and advice excellent.
1 - input sheets not detailed enough.
1 - water analysis is important.
1 - many sampling errors by producers.
1 - need mobile feed testing facilities.
1 - need NIR analysis capability.

C. GENETIC IMPROVEMENT

1. Producers using performance data for genetic improvement of their herds .....25%.

2. Performance recording systems utilized:

Fed. - Provincial R.O.P. 28%
Breed Association 9%
Farm Test 12%
None 51%

3. Producers using A.I. as a means of herd improvement: 14%

4. Percentage of #3 above that are:

Commercial producers 39%
Purebred producers 61%

5. Who does inseminating?

Technician 47%
Producer 42%
Vet 4%
Neighbour 7%

6. Source of A.I. Sires:

PPP	29%
Commercial Stud Centres	61%
Private	13%

7. Source of Herd Sires:

Bull Test Stations	25%
Breed Associaiton Sales	23%
Purebred Producers	35%
Other	17%

8. What selection criteria are used:

Performance records	47%
Other criteria	53%

9. Genetic Improvement comments:

14 - lack of adequate facilities is a constraint to R.O.P., A.I, P.P.P., etc.
12 - paper work is a constraint to R.O.P. and performance testing.
7 - time is a constraint to R.O.P., A.I., P.P.P.
6 - lack of scales is a constraint to R.O.P. and performance testing.
6 - lack of technicians is a constraint to A.I.
6 - more promotion of economic benefits of genetic improvement and performance testing required.
5 - summer pasturing makes A.I., R.O.P., P.P.P. impractical.
4 - many changes to R.O.P. program is an inhibitor.
3 - selection of A.I. bulls leaves little to be desired.
1 - should be a service charge to R.O.P.

D. BEEF MANAGEMENT

1. Effectiveness of extension methods in providing beef management technology:

4= Very Effective, 1= Not Effective.

In-depth 1 to 1 consulting	3.7
On-farm demonstrations	3.2
Regional demonstrations	2.9
Meetings, Field days	2.9
General 1 to 1 consulting	2.7
Pamphlets, Fact Sheets	2.4
Courses (Home Study)	2.3
Videos	2.3
Newspapers, Newsletters	2.2
Beef Consult	1.8

2. Producers using following practices:

- herd sire evaluation	14%
- pregnancy checking	29%
- vaccination	83%
- heat synchronization	3%
- implants	24%
- fly control (tags, spray)	61%

.....4

- castration (as calves) 78%
- dehorning (as calves) 71%

3. Beef Management Program comments:

3 - need more 1 on 1.
2 - extension requires use of all techniques.
2 - beef consult too time consuming.
2 - need more videos.
1 - need to show - economic value more.
1 - need more on-farm demos.
1 - poor economic conditions a constraint.

E. MARKETING

1. Beef producers finishing market calves to slaughter.

75% of producers or greater .....4 responses.
50-75% of producers .....17 responses.
less than 50% of producers .....17 responses.

2. Effectiveness of extension methods in providing information on beef finishing.

4=Very Effective, 1= Not Effective.

1 to 1 consulting 3.5
On farm demonstrations 3.3
Meetings, Field Day Courses 2.8
Regional Demonstrations 2.7
Newsletters, pamphlets 2.3

3. Beef Marketing comments:

14 - facilities are constraint to finishing.
14 - producer skills are constraint to finishing.
9 - feed supply and feed costs are constraints.
7 - cash flow and credit are constraints.
4 - economics of finishing are constraints.
4 - distance to market is a constraint.
2 - energy level of producer is a constraint.
1 - greater risk involved is a constraint.
1 - lack of understanding of grading system.

APPENDIX C

MANITOBA AGRICULTURE

BEEF-FORAGE PROGRAMS PRODUCER SURVEY

Manitoba Agriculture

[1] Is your beef operation primarily:

(a) a commercial beef operation _____?

(b) a purebred beef operation _____?

(c) a combination of both _____? [___% commercial; ___% purebred]

[2] What is the size of your herd? _____ cows

[3] Do you consider the beef enterprise the [major _____, minor _____, or sole _____] enterprise on your farm?

[4a] Do you usually have your feed tested

(a) on a regular basis _____?

(b) when feeding problems arise _____?

b] Please comment on the services offered by the Feed Testing Laboratory

_____

_____

[5] If you are currently not feed testing, please indicate the reasons why you are not.

_____

_____

_____

_____

[6] If you regularly have your feed tested, do you use these results to formulate a balanced ration?

Yes _____ No _____

[7] If the answer to Question #6 was 'Yes', who formulates the balanced ration? (check one)

(a) yourself _____

(b) Feed Testing Laboratory _____

(c) Manitoba Agriculture Staff _____

(d) Industry (e.g. Feed companies _____

[8] If you do not feed test, how do you determine the type and quantities of feed for your beef herd?

_____

_____

_____

[9] In your breeding program, do you use information from a recording program (e.g. R.O.P., C.H.A.R.M., other) for genetic improvement of your herd?

Yes _____ No _____

[10] If the answer to Question #9 was 'Yes', indicate the performance testing and recording system used. (Check one)

(a) Federal-Provincial R.O.P. _____

(b) Breed Association Program _____

(c) Own system _____

(d) Other (please specify) _____

[11] Again, if the answer to Question #9 was 'Yes', please comment on the system that you are using.

_____

_____

_____

[12] If you are not using a formalized performance testing system (e.g. R.O.P. Breed Association System, etc.), please indicate what your reasons are for not doing so.

_____

_____

_____

[13] Do you currently use Artificial Insemination (A.I.)?

Yes _____ No _____

[14] If the answer to Question #13 is 'Yes', on what percentage of your cows _____ and heifers _____?

[15] Again, if the answer to Question #13 is 'Yes', who does the inseminating? (Check one)

(a) Technician _____

(b) Veterinarian _____

(c) Yourself _____

(d) Other (e.g. neighbour) _____

[16] Whether or not you are using A.I., please comment on your opinion of A.I. as a means of herd improvement.

_____

_____

_____

[17] Are you aware of the Young Beef Sire Progency Proving Program (Triple P, or PPP)?

Yes _____ No _____

[18] Are you using the PPP?

Yes _____ No _____

[19a] If the answer to Question #18 is 'Yes', are you generally satisfied with the program (e.g. quality of bulls, semen quality, etc.)?

Yes _____ No _____

Comment: _____

_____

b] If the answer to Question #18 is 'No', please indicate the reason why:

_____

_____

_____

[20] When purchasing herd bulls, where do you usually buy? (Check one)

(a) Bull Test Station Sales _____

(b) Breed Association Sales _____

(c) Private purchase from Purebred Producer _____

(d) Private purchase from Commercial Producer _____

(e) Other; please specify _____

_____

[21] In your opinion, which one offers the best quality

(a) Bull Test Station Sales _____

(b) Breed Association Sales _____

(c) Private Purebred Producer _____

(d) Private Commercial Producer _____

(e) Other _____

Please Comment: _____

_____

_____

[22] Please rate how important each of the following factors are to you when you are buying a herd bull:

	Very Important	Important	Somewhat Important	Not Important
Price	_____	_____	_____	_____
Show Ring	_____	_____	_____	_____
Appearance (e.g. body type)	_____	_____	_____	_____
Performance Record	_____	_____	_____	_____
Fertility (Breeding Soundness)	_____	_____	_____	_____

[23] Are you finishing your market calves to slaughter?

Yes _____ No _____

[24] If the answer to Question #23 was 'Yes', what percentage of your calves do you finish? _____%

[25] On what basis have you made your decision to finish or not finish?

_____

_____

_____

_____

_____

[26] In the management of your beef herd, which of the following management practices do you utilize on a regular basis? (Check as many as appropriate).

Herd Sire Evaluation [ ]

Pregnancy Checking [ ]

Cull Open cows (prior to calving season) [ ]

Strive to maintain cows on a yearly calving interval [ ]

Breed heifers to calf as 2 year olds [ ]

Utilize yearling bulls for breeding [ ]

Practice Heat (Estrus) Synchronization [ ]

Follow a Cross-Breeding Program [ ]

Vaccination [ ]

Growth Implants [ ]

Fly Control (Tags, Spray, Oiler) [ ]

Warble Fly Control [ ]

Castrate (as calves) [ ]

Dehorn (as calves) [ ]

Keep records on the financial & production aspects of your herd [ ]

[27] Please rate how you view the importance of these factors with regard to the profitability (general economics) of your beef operation?

	Very Important	Important	Somewhat Important	No Importance
Herd Sire Evaluation	____	____	____	____
Pregnancy Checking	____	____	____	____
Cull Open Cows (prior to calving season)	____	____	____	____
Strive to maintain cows on a yearly calving interval	____	____	____	____
Breed heifers to calf as 2 year olds	____	____	____	____
Utilize yearling bulls for breeding	____	____	____	____
Practice Heat (Estrus) Synchroniz.	____	____	____	____
Follow a Cross-Breeding Program	____	____	____	____
Vaccination	____	____	____	____
Growth Implants	____	____	____	____
Fly Control (Tags, Spray, Oiler)	____	____	____	____

[continued....]

[27] Continued....

	Very Important	Important	Somewhat Important	No Importance
Warble Fly Control	____	____	____	____
Castrate (as calves)	____	____	____	____
Dehorn (as calves)	____	____	____	____
Maintain records on the financial & production aspects of your herd	____	____	____	____

[28] In the forage production area of your operation, which of the following practices do you utilize on a regular basis? (Check as many as appropriate.)

Use recommended varieties [ ]
Inoculate legumes (e.g. alfalfa) [ ]
Fertilize forage fields annually [ ]
Fertilize forage fields according to a soil test [ ]
Include forage as part of a farm crop rotation [ ]
Use rotational grazing [ ]
Keep records on the cost and production aspects of your hay & pasture fields [ ]

[29] Please rate how you view the importance of these factors with regard to the profitability (general economics) of your forage program:

	Very Important	Important	Somewhat Important	No Importance
Use recommended varieties	____	____	____	____
Inoculate legumes (e.g. alfalfa)	____	____	____	____
Fertilize forage fields annually	____	____	____	____
Fertilize forage fields according to a soil test	____	____	____	____
Include forage as part of a crop rotation system	____	____	____	____
Use rotational grazing	____	____	____	____
Keep records on the cost and production aspects of your hay & pasture fields	____	____	____	____

[30] As a rule, how often do you renovate your tame forage field? Every ____ years.
How do you decide when to renovate? _____

_____

[31] Which type of hay harvesting and handling system do you use to put up the majority of your winter feed supply? (Check one)

(a) Large round bales _____

(b) Large square bales (over 1000 lbs.) _____

(c) Small bales _____

(d) Loose hay (stacks) _____

(e) Silage _____

[32] What percentage of your winter feed supply is:

(a) Tame hay _____%

(b) Native hay _____%

(c) Annuals (including corns, greenfeed) _____%

(d) Crop residues (straw, corn stover, etc.) _____%

(e) Other _____% Please specify _____

[33] What percentage of the grazing season are your livestock on:

(a) Tame pasture _____%

(b) Native pasture _____%

(c) Annual pasture (oats, millet, etc.) _____%

(d) Other _____% Please specify _____

[34] Manitoba Agriculture attempts to keep beef producers informed as to the advances in technology through various methods. Please rate the following extension methods in regard to how effective each one is in providing you with beef and forage management information:

	Very Effective	Effective	Somewhat Effective	Not Effective
Regional Demonstrations (Grasslands, Feedlot, etc)	____	____	____	____
On-Farm Demonstrations	____	____	____	____
Farm Meetings	____	____	____	____
Tours, Field Days	____	____	____	____
Home Study Courses	____	____	____	____
Newsletter	____	____	____	____
Newspaper articles	____	____	____	____
Video Cassettes	____	____	____	____

[34] Continued...

	Very Effective	Effective	Somewhat Effective	Not Effective
Pamphlets, Factsheets	____	____	____	____
Agricultural Office Visit	____	____	____	____
Grassroots (Telidon Committee)	____	____	____	____
Direct (1-on-1) discussion with Ag Rep	____	____	____	____
Direct (1-on-1) discussion with Specialist	____	____	____	____
Direct (1-on-1) discussion with Livestock or Grassland Technician	____	____	____	____
Other; Specify _____	____	____	____	____

[35] WE THANK YOU FOR TAKING THE TIME TO READ AND COMPLETE THIS QUESTIONNAIRE. YOUR ANSWERS AND COMMENTS WILL BE OF BENEFIT TO MANITOBA AGRICULTURE IN THE DEVELOPMENT OF EFFECTIVE EXTENSION STRATEGIES.

PLEASE ADD ANY COMMENTS YOU MAY HAVE IN REGARDS TO THE CONTENTS OF THIS QUESTIONNAIRE. _____

_____

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_____ _____

Date Sign (if you wish)

APPENDIX D

MANITOBA AGRICULTURE

Beef/Forage Programs Producer Survey Summary July 1986

This survey represents data from 326 out of a possible 1000 replies. Data has been summarized into three groups based on herd size:

I = < 50 cows
II = 50-100 cows
III = > 100 cows

Questions 1-3:

	I	II	III	Total
Total replies:	152	130	44	326
i) major	73 (49%)	98 (75%)	35 (80%)	206 (64%)
ii) minor	66 (44%)	18 (14%)	5 (11%)	89 (27%)
iii) sole	10 (7%)	14 (11%)	4 (9%)	28 (9%)
Avg. herd size:	30 cows	72 cows	144 cows	

Question 4:

a) Do you usually have your feed tested?

	Regular Basis	When Problems Arise	Do Not Feed Test	Total
I	10 (6%)	45 (30%)	97 (64%)	152
II	19 (15%)	46 (36%)	64 (50%)	129
III	10 (23%)	18 (41%)	16 (36%)	44
	39 (12%)	109 (34%)	177 (54%)	

b) Comments on the services offered by the Feed Lab:

I	II	III	
18	11	26	good/ very good/ excellent/ satisfactory/adequate
2		3	efficient/ useful/ accessible
4	7	3	results are slow
1		1	results hard to understand
1			need something for bulls
1			need information on supplements
	6	1	limited information returned/ not adequate/ minimal
	1	2	too expensive/ should be free
		3	more detail needed
		1	could suggest rations using the results
		2	use other testing facilities

Question 5: Why do you not feed test?

I	II	III	
75	50	12	see no need (ie. no problems, so why feed test)
10	6	1	unfamiliar with service
3	7	1	too costly
4		2	plan to in the future
2			herd not big enough
1			results confusing and not helpful
1			used to test but reduced herd
1			not enough information given
	7		not in the habit
	2	1	feeds what is available
	1		too many forms
	1		buys prepared feed
	1		does not finish cattle
	1		used service years ago and now knows good feed
	1		does not know how to use the results
	1		common sense and experience
	1		sent in samples once but did not get any information
		1	custom finishes cattle
		1	information on feed in area is readily accessible
		1	wants complete testing service
		1	uses feed company
		1	knows value of hay when put up

Question 6: If you regularly feed test, do you use the results to formulate a balanced ration?

	Yes	No	Do Not Regularly Feed Test	Total
I	9	1	142	152
II	17	2	111	130
III	9	1	34	44
	35	4		

Question 7: If your answer to #6 was yes, who formulates the balanced ration?

	Self	Feed Lab	Man. Ag. Staff	Industry
I	5	1	3	3
II	12	1	2	6
III	7	2	1	3
	24	4	6	12

Question 8: If you do not feed test, how do you determine the type and quantities of feed for your herd?

I	II	III	
54	45	11	experience/ eye-ball
25	14	5	condition of cattle
6	7	3	harvest/ storage conditions
7	9	5	free-choice feeding
4	8	1	feeds what is available
4	5	2	info from feed co., phamplets, U of M, specialist, etc.
	4		use supplements
		1	uses feedlot

Question 9: In your breeding program, do you use information from a recording program for genetic improvement of your herd?

	Yes	No	Total
I	36 (24%)	116 (76%)	152
II	42 (32%)	88 (68%)	130
III	18 (41%)	26 (59%)	44
	96 (29%)	230 (71%)	326

Question 10: If your answer to #9 was yes, indicate the type of program utilized:

	ROP	Breed Ass'n	Own System
I	16	8	13
II	20	10	18
III	11	5	8
	47	23	39

Question 11: Please comment on the recording system that you are using:

I	II	III	
			ROP
4		1	very good/ beneficial/ excellent
1			good - needs to be as simple as possible
2			forms awkward and hard to file/ excess paper
1			nothing but a feeding program
1			has poor record turn around time
	4		unfamiliar, too complicated and time consuming
	2		too much paperwork
	2		too slow/ could be improved
	2	1	satisfactory/ has become more sensible
	1		brings out weaknesses
	1		generates more interest and follow through
	10		aids in selection and culling
	5		utilize performance tested bulls
	2		no problems
	1		useful for cross-breeding
		2	good program for herd improvement
		2	buy performance tested bulls
		2	like the records provided by the program
		2	good for choosing replacements
		1	all programs are satisfactory
			Breed Association
1			gives total herd evaluation (T.H.E.)
1			program can be manipulated to make animals look good
1			selects bulls using gain and calving ease
		1	well organized, easy to understand (T.H.E.)

I	II	III	Own System
4			buy good/ purebred replacements/ bulls
2			based on ROP
1			culls open cows after a 90-day breeding period
1			tags animals to identify and to cull
1			uses tested AI sires; gain, CE and fertility as selection criteria
	1		birth, weaning and slaughter weights used
	1		has all registered animals

Question 12: Reasons for not utilizing a formalized performance testing system:

I	II	III	
24	26	5	see no need
17	22	7	no time/ too much work
5	2		too costly
5			small herd
3	9		lack proper facilities
3	1		used to use ROP but did not find it that useful
3	8	2	prefers to rely on experience/ own system
2	1		use PFRA bulls
1			buys all replacements
1			intends to go out of cattle soon
1			price a better indicator
1			raise cattle to use the pasture
1			purchases a good bull
	4	1	unfamiliar with program
	1		too much handling of cattle
	1		tried ROP but quit as not using it fully
	1		not selling breeding stock
	1		tried ROP but cows lost their ear tags
		1	going to start
		1	purchases feeders

Question 13: Do you currently use Artificial Insemination?

	Yes	No	Total
I	21 (14%)	130 (86%)	151
II	19 (15%)	111 (85%)	130
III	17 (39%)	27 (61%)	44
	57 (18%)	268 (82%)	

Question 14: If #13 was yes, on what percent of your:

	Cows	Heifers
I	34.5% (range 1-100%)	36.3% (range 0-100%)
II	21.7% (range 0-100%)	34.8% (range 0-100%)
III	17.1% (range 0-50%)	11.8% (range 0-60%)

Question 15: If #13 was yes, who does the inseminating?

	AI Tech'n	Vet'n	Self	Other
I	12	0	5	4
II	7	0	9	5
III	6	0	10	1
	25		24	10

Question 16: Opinion of AI as a means of herd improvement:

I	II	III	
52	46	9	excellent/ good/ very good/ best/ super/ satisfactory
14	9	7	economic accessibility to top bloodlines
2	3		very successful/ beneficial/ useful/ quick, efficient
1	1		get better quality calves
1		5	reasonable cost
1			can move a program generations ahead
	1		can try different breeds and bulls
	1		only get out of it what you put into it
		1	have to know how to select bulls for your calves
13	12	2	good but requires a lot of work/ time consuming
8	4		good but not practical in commercial herd
2	1	1	good but poor conception
1			good - has used and will use when tech'n gets better
	4		good but lack facilities; problems with heat detection
	1		very good but can be costly
	1		useful but did not have much luck
	1		good, used it for many years but had some bad experiences
5			expensive
4			would not pay
1			no AI technician
1			used it from 1960-70, a pain!
	1		not enough information on sires
	2		impractical for large herds
	2	1	only for purebred breeders
	2		extra time required out-weighs the benefits
	1		hurts fertility of cow
	1		more important for dairy than beef
	1	2	lots of good bulls around, do not need AI
		1	too little money in cattle
		1	questionable - narrows bloodlines

Question 17: Are you aware of PPP?

	Yes	No	Total
I	60 (39%)	92 (61%)	152
II	69 (53%)	61 (47%)	130
III	28 (64%)	16 (36%)	44
	157 (48%)	169 (52%)	

Question 18: Are you using PPP?

	Yes	No	Total
I	6 (4%)	146 (96%)	152
II	8 (6%)	122 (94%)	130
III	6 (14%)	38 (86%)	44
	20 (6%)	306 (94%)	

Question 19:

a) If #18 was yes, are you satisfied with PPP?

	Yes	No	Comments
I	6	0	(1) does not care for reference sires
			(1) conception too low
			(1) CE good and excellent growth
II	5	0	(2) first year on program
			(1) most sires are good
			(1) would prefer horned Herefords
			(1) larger selection of ref. sires desired
III	3	1	(1) likes reference sires lately
			(1) good results
			(1) first year on program
			(1) does well but problems ie. semen quality, producers abuse program, 2-3 yrs. for results

b) If not using PPP, please indicate why:

I	II	III	
89	57	12	unaware of program
26	81	17	not using AI
4	2		prefer proven/ older bulls
2		2	not a wide enough selection
2	1		does not fit into operation
2	12	2	time consuming/ too busy
1	1		satisfied with own system
1		1	no AI but has had bulls in PPP
1			prefers to purchase semen from best source possible
1			does not like PPP bulls from test stations
1			too many head have to be on program, thereby limiting the use of other AI bulls
1			bulls do not compare with nationally owned bulls(A.B.S)
1			has used but bulls sometimes have undesireable traits
1			uses performance tested bulls or bulls with excellent show records
1			on in 1985 but did not like the selection being strictly on records
1			program has not been around long enough
1			birth weights too high on PPP bulls

I	II	III	
	3		too costly
	3		lack facilities for AI
	2	1	no need/ inconvenient
	2		no PPP Limousin/ horned Hereford bulls
	1		used a PPP bull for 5 years
	1		has own semen
	1		uses other bulls to provide genetic diversity
		1	bulls are not necessarily better
		1	disliked a PPP bull
		1	does not like the bulls nor the way they are chosen
		1	has used PPP but did not like the Herefords this year

Question 20: When purchasing your herd bulls, where do you buy from?

	Bull Test Stations	Breed Ass'n Sales	Purebred Producer	Commercial Producer	Other
I	17	14	108	24	11*
II	29	33	96	10	7**
III	17	12	28	1	0
	63	59	232	35	18

* (4)own herd (4)auctions (2)all breed/ production sales
(1)AI bulls

** (2)all breed sales (2)Brandon winter fair
(1)own herd (1)auction market (1)neighbors

Question 21:

a) In your opinion, which one offers the best quality?

	Bull Test Stations	Breed Ass'n Sales	Purebred Producer	Commercial Producer	Other
I	43	16	70	7	3*
II	44	19	64	6	0
III	26	8	17	0	0
	113	43	151	13	3

* (1)bull sales (1)AI

b) Comments:

I	II	III	
			Bull Test Stations
3	4	2	records provided/ can compare within breed
1			results unbiased
1	2	1	better selection
1	2		good culling system
1			without testing, you are guessing
1			Regina Test Centre has best yearling bull program
	2		best quality
	1		government inspected
	1	2	establishes genetic superiority for rate of gain
		1	most breeders put in their best bulls
	1		good bulls but have ended up with duds
		1	good quality but does not give you your required mature animal
	1		does not account for temperment
10	7		bulls overfed/ burned out/ begin breeding late
5	2		expensive
	1		sales are held too late in the breeding season
			Breed Association Sales
2			producers contribute their best bulls
1	1		variety of producers contribute bulls
1			bulls selected from performance data
		1	stricter culling
			Purebred Producer
4	9	3	can see herd
1			better records of performance
	2		breeder guarantees bulls
	2		same breedings as test station but increased choice
	1		all bulls come from here, ultimately
	1		test station bulls not up to expectations
		2	test station bulls pushed too hard/ too young and small
		1	more reasonable price
		1	bulls work better than those on special feed at the test stations
			Commercial Producer
	1		likes the selection, easy calving
	1		convenient
	1		not fed for show conditions

Question 22: Please rate how important each of the following factors are to you when buying a bull:
(4=very important, 3=important, 2=somewhat important, 1=not important)

	Price	Show Ring	Appearance	Performance Rec.	Fertility
I	3.0	1.6	3.6	3.5	3.8
II	2.9	1.4	3.7	3.5	3.9
III	2.8	1.4	3.6	3.6	3.9

Question 23: Are you finishing your market calves to slaughter?

	Yes	No	Total
I	73 (48%)	78 (52%)	151
II	77 (59%)	53 (41%)	130
III	29 (66%)	15 (34%)	44
	179 (55%)	146 (45%)	

Question 24: If #23 was yes, what percentage are you finishing?

	Average	Range
I	77.1%	10-100%
II	76.8%	10-100%
III	80.2%	25-100%

Question 25:

a) If #23 was YES, on what basis have you made your decision to finish?

I	II	III	
25	39	13	economical
14	14	6	have the feed
10	16	8	Manitoba Beef Commission
5	7	2	always have
2			finishes out cattle not used as breeding stock
2	5	2	have the facilities
1	4	2	finishes based on quality of calves
1			uses custom feedlot
1			provides information on herd performance
1			hay crop yield and market for feed grain
	2		job in the winter-time
		1	experience

b) If #23 was NO, why do you not finish?

I	II	III	
18	15	3	not economical
19	22	6	lack the facilities
7	16	2	lack of feed grain
3	7		work load/ too busy
2		1	too risky
2	1		may finish out cull calves in the future
1			sells purebred bulls
1			bloating problems
1			lack of well water
1			grasshopper and drought area
1			impossible to hire help
1			ill health of producer
1			has full-time job - cattle are side money
	1	1	lack the experience/ knowledge

Question 26: Which of the following management practices do you use on a regular basis?

Item	YES (%)			NO (%)		
	I	II	III	I	II	III
herd sire evaluation	52	60	81	48	40	19
pregnancy checking	40	48	49	60	52	51
cull open cows	66	80	74	34	20	26
yearly calving interval	91	94	95	9	6	5
breed heifers as 2-yr. olds	80	90	83	20	10	17
use yearling bulls	41	53	67	59	47	33
heat synchronization	4	3	7	96	97	93
cross-breeding	56	74	79	44	26	21
vaccination	80	92	93	20	8	7
growth implants	26	51	58	74	49	42
fly control	76	79	77	24	21	23
warble control	66	85	90	34	15	10
castrate	87	94	91	13	6	9
dehorn	54	61	70	46	39	30
keep records	45	59	65	55	41	35

Question 27: Please rate how you view the importance of these practices to the profitability of your beef operation: (4=very important, 3=important, 2=somewhat important, 1=not important)

	I	II	III
herd sire evaluation	3.5	3.5	3.7
pregnancy checking	3.0	3.0	2.7
cull open cows	3.4	3.3	3.3
yearly calving interval	3.7	3.7	3.7
breed heifers as 2-yr. olds	3.3	3.4	3.4
utilize yearling bulls	2.3	2.4	2.6
heat synchronization	1.5	1.3	1.4
cross-breeding	2.9	3.0	3.3
vaccination	3.6	3.8	3.9
growth implants	2.2	2.7	2.9
fly control	3.4	3.3	3.3
warble fly control	3.4	3.5	3.7
castrate	3.5	3.4	3.6
dehorn	3.1	3.0	3.8
keep records	3.0	3.1	3.4

Question 28: In the forage production area of your operation, which of the following practices do you utilize on a regular basis?

	YES (%)			NO (%)		
	I	II	III	I	II	III
use recommended varieties	67	82	74	33	18	26
inoculate legumes	66	75	79	34	25	21
fertilize annually	48	52	57	52	48	43
fertilize according to soil test	24	20	29	76	80	71
include forage in crop rotation	70	67	71	30	33	29
use rotational grazing	56	58	57	44	42	43
keep records	30	28	36	70	72	64

Question 29: Please rate how you view the importance of these practices with regard to the profitability of your forage program:
(4=very important, 3=important, 2=somewhat important, 1=not important)

	I	II	III
use recommended varities	3.3	3.2	3.4
inoculate legumes	3.1	3.3	3.4
fertilize annually	3.0	3.0	3.2
fertilize according to soil test	2.6	2.6	2.8
include forage in crop rotation	3.1	3.0	3.2
use rotational grazing	3.1	2.9	3.3
keep records	2.7	2.7	3.0

Question 30:

a) As a rule, how often do you renovate your tame forage fields?

	Average	Range
I	5.7 years	2-20 years
II	7.0 years	3-17.5 years
III	7.0 years	4-20 years

b) How do you decide when to renovate?

I	II	III	
59	76	30	decreased production
19	16		eye-ball/ experience
8	2		rotation program
3	14	1	moles/ gophers/ root-bound/ rough
3	5		moisture, grasshoppers, year, etc.
3		2	dies out/ winter-kill
2			recommendation of minimum of 5 years
1	3		impossible to renovate/ use wild hay
1	4		number of alfalfa plants
	1		land area and if something else can be grown

Question 31: WHich type of hay and handling system do you use to put up the majority of your winter feed supply?

	Lg Round Bales	Lg Sq Bales	Small Bales	Loose Hay	Silage
I	112	11	40	0	3
II	106	12	18	10	9
III	37	0	6	1	7
	255	23	64	11	19

Question 32: What percent of your winter feed supply is:

	Tame Hay	Native Hay	Annuals	Crop Residues	Other
I	61.0%	22.8%	5.4%	10.2%	1.0% *
range:	(5-100%)	(5-100%)	(5-100%)	(5-60%)	(5-20%)
II	57.8%	19.6%	8.4%	12.8%	1.2% **
range:	(5-100%)	(2-100%)	(5-90%)	(3-90%)	(5-30%)
III	53.3%	25.0%	11.9%	8.2%	1.4% ***
range:	(10-95%)	(5-100%)	(5-80%)	(5-50%)	(10-40%)

* (10)grain (1)liquid feed (1)silage (1)pellets and molasses
** (8)grain (1) stubble (1)pellets
*** (3)grain

Question 33: What percent of the grazing season are your livestock on:

	Tame Pasture	Native Pasture	Annual Pasture	Other
I	23.5%	74.4%	0.9%	1.2% *
range:	(10-100%)	(10-100%)	(10-40%)	(5-50%)
II	22.8%	75.0%	0.3%	1.9% **
range:	(5-100%)	(10-100%)	(5-10%)	(5-20%)
III	27.7%	71.3%	0.5%	0.5% ***
range:	(5-100%)	(20-100%)	(20%)	(20%)

* (9)stubble (1)summerfallow
** (13)stubble (1)alfalfa fall pasture
*** (1)grain fields

Question 34: Rate the following extension methods with regard to the effectiveness in providing you with beef and forage management information:
(4=very important, 3=important, 2=somewhat important, 1=not important)

	I	II	III
regional demonstrations	2.5	2.7	2.7
on-farm demonstrations	2.7	2.7	2.8
farm meetings	2.6	2.8	2.7
tours, field days	2.6	2.5	3.1
home study courses	2.5	2.4	2.6
newsletter	2.7	3.0	3.1
newspaper articles	3.0	3.0	3.1
video cassettes	1.8	2.0	2.1
pamphlets, fact sheets	2.8	2.8	2.9
agricultural office visit	2.8	2.9	2.8
grassroots (Telidon)	1.8	1.8	2.1
direct 1-1 with Ag Rep	2.9	3.0	3.1
direct 1-1 with Specialist	2.9	2.9	3.4
direct 1-1 with Technician	2.9	2.9	3.3

TABLE 1

MANITOBA
BEEF COW DISTRIBUTION
BY HERD SIZE
1981
(SOURCE 1981 CENSUS)

NUMBER OF BEEF COWS PER FARM	NUMBER OF FARMS	NUMBER OF COWS
1- 2 cows	812	1,249
3- 7 cows	1,536	7,455
8-17 cows	2,510	30,687
18-47 cows	4,529	134,473
48-77 cows	1,616	96,077
78-177 cows	902	95,007
178-272 cows	74)	
273-527 cows	23)	24,415
528-999 cows	2)	
TOTALS	12,004	389,363

TABLE 2

MANITOBA FARMS WITH BEEF CATTLE CLASSIFIED
BY VALUE OF AGRICULTURAL PRODUCTS SOLD
1981
(SOURCE 1981 CENSUS)

VALUE OF SALES	NUMBER OF FARMS	NUMBER OF CATTLE
Less than $2500	1,238	23,544
$2,500 - 4,999	1,001	27,145
5,000 - 9,999	1,583	55,443
10,000 -24,999	3,486	180,942
25,000 -49,999	3,817	283,794
50,000 -99,999	3,259	332,652
100,000 -249,999	1,303	183,482
250,000 and over	298	88,964
TOTALS	15,995	1,175,966

TABLE 3

MANITOBA FARMS WITH BEEF CATTLE CLASSIFIED

BY AREA OF IMPROVED LAND * PER FARM

1981

(SOURCE 1981 CENSUS)

AREA OF IMPROVED LAND ACRES	NUMBER OF FARMS	NUMBER OF CATTLE
Less than 3 acres	419	17,073
3 - 9 acres	328	7,237
10 - 69 acres	1,390	45,044
70 - 129 acres	1,288	51,701
130 - 179 acres	1,180	65,819
180 - 239 acres	1,062	60,806
240 - 399 acres	3,066	191,574
400 - 559 acres	2,513	187,621
560 - 759 acres	2,031	184,887
760 -1119 acres	1,605	175,216
1120 -1599 acres	678	97,741
1600 and over	435	91,247
	15,995	1,175,966

* CENSUS DEFINITION:

TABLE 4

MANITOBA FARMS WITH BEEF CATTLE CLASSIFIED

BY TOTAL CAPITAL VALUE

1981

(SOURCE 1981 CENSUS)

TOTAL CAPITAL VALUE	NUMBER OF FARMS	NUMBER OF CATTLE
Less than $10,000	9	38
10,000 - 24,999	122	1,233
25,000 - 49,999	600	8,997
50,000 - 99,999	2,204	53,347
100,000 - 199,999	3,808	180,229
200,000 - 499,999	6,179	500,107
500,000 and over	3,073	432,015
	15,995	1,175,966

TABLE 5

DISTRIBUTION OF BEEF CATTLE ON
MANITOBA FARMS WITH SALES OVER
$2500 CLASSIFIED BY MAIN PRODUCT TYPE
1981
(SOURCE 1981 CENSUS)

PRODUCT TYPE	NUMBER OF FARMS REPORTING BEEF CATTLE	NUMBER OF BEEF CATTLE
BEEF CATTLE*	5,679*	657,582*
DAIRY	1,803	145,926
HOGS	372	11,450
POULTRY	118	3,047
GRAIN	5,129	234,098
FRUITS	3	12
MISCELLANEOUS	129	2,311
MIXED	1,524	97,996
	14,757	1,152,422

* TABLES 6,7,8 REFER TO THIS GROUP ONLY, I.E. FARMS CLASSIFIED AS A MAIN PRODUCT TYPE BEING BEEF CATTLE.

TABLE 6

MANITOBA CATTLE FARMS WITH SALES OVER $2500 CLASSIFIED BY SIZE OF FARM

1981

(SOURCE 1981 CENSUS)

SIZE OF FARM ACRES	NUMBER OF FARMS
less than 3 acres	33
3 - 9 acres	28
10 - 69 acres	264
70 - 239 acres	850
240 - 399 acres	851
400 - 559 acres	735
560 - 759 acres	792
760 - 1119 acres	962
1120 - 1599 acres	591
1600 - 2239 acres	314
2240 - 2879 acres	115
2880 and over	144
	5,679

TABLE 7

MANITOBA CATTLE FARMS WITH SALES OVER
$2500 CLASSIFIED BY AGE OF OPERATOR
1981
(SOURCE 1981 CENSUS)

AGE OF OPERATOR	NUMBER OF FARMS
15 - 19 years	15
20 - 24 years	135
25 - 29 years	389
30 - 34 years	495
35 - 39 years	618
40 - 44 years	657
45 - 49 years	720
50 - 54 years	841
55 - 59 years	765
60 - 64 years	568
65 - 69 years	281
70 and over	195
	5,679

TABLE 8

MANITOBA CATTLE FARMS WITH SALES
OVER $2500 1981 LAND USE STATISTICS

Total area of farms	4,554,269 acres
Acres Improved Land	2,112,116 acres (5,537 farms)
Acres Under Crops	1,448,325 acres (5,004 farms)
Acres Improved Pasture	371,427 acres (2,749 farms)
Acres Tame Hay	493,793 acres (4,121 farms)
Acres Fertilized	804,303 acres (2,869 farms)

TABLE 9

MANITOBA CATTLE FARMS WITH SALES OVER
$2500 CLASSIFIED BY SIZE OF FARM
1981 - 1971
(SOURCE CENSUS)

SIZE OF FARM	NUMBER OF FARMS 1981	1971
less than 3 acres	33	21
3 - 9 acres	28	66
10 - 69 acres	264	198
70 - 239 acres	850	862
240 - 399 acres	851	1,862
400 - 559 acres	735	1,851
560 - 759 acres	792	1,762
760 - 1119 acres	962	1,701
1120 - 1599 acres	591	866
1600 - 2239 acres	314	348
2240 - 2879 acres	115	136
2880 and over	144	156
	5,679	9,829

TABLE 10

MANITOBA CATTLE FARMS WITH SALES OVER $2500 CLASSIFIED BY AGE OF OPERATOR

1981 - 1971
(SOURCE CENSUS)

AGE OF OPERATOR	NUMBER OF FARMS 1981	1971
15 - 24 years	150	210
25 - 34 years	884	1,519
35 - 44 years	1,275	2,443
45 - 54 years	1,561	2,958
55 - 59 years	765	1,258
60 - 64 years	568	850
65 - 69 years	281	389
70+	195	202
	5,679	9,829

TABLE 11

MANITOBA CATTLE FARMS WITH SALES OVER
$2500 OFF - FARM EMPLOYMENT 1981-1971
(SOURCE - CENSUS)

1971: 2,088, or 21% of the 9,829 farms classified as cattle farms reported 238,212 days of off-farm employment.
That works out to an average of 114 days per year per farm reporting off-farm employment.

1981: 1,819, or 32% of the 5,679 farms classified as cattle farms reported 268,649 days of off-farm employment.
That works out to an average of 147 days per year per farm reporting off-farm employment.

TABLE 12

MANITOBA CATTLE FARMS WITH SALES OVER $2500

LAND USE STATISTICS

	1981	1971
Total acreage of farms	4,554,269	7,046.608
Acres of improved land	2,112,116	4,041,134
Acres under crops	1,448,325 (5,004)	2,831,478 (9,192)
Acres improved pasture.....	371,427 (2,749)	335,416 (3,806)
Acres tame hay	493,793 (4,121)	461,182 (5,961)
Acres fertilized	804,303 (2,869)	951,765 4,280)

( ) number of farms.

APPENDIX F

MANITOBA BEEF COMMISSION
1135-444 St. Mary Ave. Winnipeg, Manitoba R3C 3T1
Phone: (204) 945-4161

RECEIVED
APR 3 - 1986
AGRICULTURAL CROWN LANDS SECTION

April 1, 1986

Mr. Gil Lahaie
Rangeland Management Coordinator
Department of Agriculture
Crownlands Branch
Westrow Industrial Mall
1495 St. James Street
Winnipeg, Manitoba
R3H oW9

Dear Mr. Lahaie:

This letter is responding to your inquiry for livestock data from our records.

1. We presently have 4,905 producer contracts, involving 6,320 individual producers. (Some contracts have multiple owners with a common herd).

2. The contracts register 239,546 commercial beef cows, 21,041 purebred beef cows, and 4,710 dairy calves. A consideration factor is our contracts are less attractive to purebred or dairy herds.

3. Herd sizes range from 1 to 1,210 cows. The average herd size is 53.99 cows.

4. Value of livestock marketed by our contract holders during 1985 was $108,897,000. or an average per contract of $22,275.

5. Attached is a report titled Herd Inventory Report which shows the percentage of increase in basic cow herds by regions.

6. Attached is a statistical report covering 40 months of operation on a regional basis.

7. Our original contracts carried information on acreage, pasture land etc. However, this has not been maintained or is readily accessible.

8. As of December 31st, 1985 Producers had received a Net Stabilization Benefit of $33,864,756. An analysis of this amount showed:

28	contracts received	$50,000 and up
42	" "	40,000 - $50,000
86	" "	30,000 - $40,000
122	" "	20,000 - $30,000
214	" "	15,000 - $20,000
447	" "	10,000 - $15,000

923	contracts received	$5,000 - $10,000
2,876	" "	0 - $ 5,000
30	" "	Zero
83	" had a negative balance (paid more premiums than stabilization received).	

9. Attached is a computer print out showing the number of contracts in various basic cow herd groupings.

I trust that this is the information that you require. If we can be of any further assistance, do not hesitate to give us a call.

Yours truly,

Joe Dunsmore,
General Manager

3 attachments

FINAL RESUME OF 1985 HERD INVENTORY REPORTS

4,809 RETURNS - 99.4% OF TOTAL JUNE 30/85 CONTRACTS

REGION	NO. OF CONTRACTS	BASIC HERD PRIOR TO JUNE 30/85	BASIC HERD AFTER JULY 1/85	HEAD DIFFERENCE	PERCENTAGE DIFFERENCE
INTERLAKE	761	47,990 head	51,910 head	3,920	8.16
EASTERN	291	13,365 head	13,906 head	541	4.04
CENTRAL	921	44,732 head	46,206 head	1,474	3.29
NORTHWEST	1,254	66,053 head	69,132 head	3,079	4.66
SOUTHWEST	1,582	80,247 head	81,321 head	1,074	1.33
PROVINCIAL TOTAL	4,809	252,387 head	262,475 head	10,088	3.99

February 14, 1986

ANALYSIS OF M.B.C. CONTRACTS BY BASIC HERD NUMBERS

Number of Cows	Number of Contracts
1 - 10 hd	213
11 - 30 hd	1,250
31 - 50 hd	1,321
51 - 70 hd	832
71 - 90 hd	518
91 - 100 hd	186
101 -200 hd	548
201 hd and up	49

Prepared: 86 02 03

MANITOBA BEEF COMMISSION

STATISTICAL REPORT

FOR THE PERIOD SEPTEMBER 1, 1982 TO DECEMBER 31, 1985 (3 YEARS, 4 MONTHS)

	NORTHWEST REGION	SOUTHWEST REGION	CENTRAL REGION	EASTERN REGION	INTERLAKE REGION	TOTAL
VOLUME OF HANDLE STABILIZED						
Calves	77,928 head	65,584 head	35,494 head	13,418 head	48,205 head	240,629 head
Yearlings	36,498	29,507	16,083	5,690	33,640	121,418
Slaughter	36,995	87,510	47,697	9,543	24,853	206,598
Total	151,421 head	182,601 head	99,274 head	28,651 head	106,698 head	568,645 head
PRODUCER PARTICIPATION						
Original Number of Contracts	1,256	1,600	922	298	740	4,816
Terminations	59	73	54	15	25	226
New Contracts	79	89	61	25	56	310
Active Contracts - as of December 31, 1985	1,276	1,616	929	308	771	4,900
Registering: Beef Cows	67,871 head	83,692 head	45,529 head	13,772 head	49,216 head	260,080 head
Dairy Cows	585 head	1,171 head	959 head	598 head	1,228 head	4,541 head
Total	68,456 head	84,863 head	46,488 head	14,370 head	50,444 head	264,621 head
FINANCIAL						
Productivity Enhancement Grant	$ 3,504,110	$ 4,406,280	$ 2,374,220	$ 718,020	$2,387,730	$13,390,360
Net Stabilization Payment - Calves	1,914,594	1,625,913	909,609	345,745	1,192,928	5,988,789
Net Stabilization Payment - Yearlings	1,012,052	798,486	484,147	166,877	1,115,081	3,576,643
Net Stabilization Payments - Slaughter	4,279,663	10,687,497	5,560,491	1,070,383	2,686,760	24,284,794
Total	$10,710,419	$17,518,176	$ 9,328,467	$2,301,025	$7,382,499	$47,240,586

177
106
7179.

K. J. Cassidy
Administration Manager

APPENDIX G

UNIVERSITY OF SASKATCHEWAN
SASKATOON
CANADA
DIVISION OF EXTENSION & COMMUNITY RELATIONS
S7N 0W0

March 4, 1986

Mr. Fraser Stewart
Grassland Specialist
Farm and Rural Development
Manitoba Agriculture
Box 50
20 First Street S.
Beausejour, Manitoba
R0E 0C0

Dear Fraser:

In response to your letter of February 12th, I regret that I cannot be of any great assistance to you on technology transfer in the forage and beef enterprises. I have also checked here with my colleagues in agricultural extension (Bruce Hobin and Glen Hass) and they were not able to identify such studies.

If you have not done so, you might find it useful to contact the several regional extension centers in the United States, and they might be aware of such studies.

For a period in the 60s and 70s in particular, we had a relatively large number of adoption-diffusion studies in North America, which comes close to your interest. Unfortunately, in recent years, agricultural officials have not been inclined to invest in extension research (and generally still are not doing so), thus we really have a dearth of information on such topics. They seem satisfied that extension continue on a "seat of the pants" basis, and do not recognize that there may be great wastage. This is in spite of the fact we invest annually some 400 million dollars in agricultural research in Canada, and some 100 million dollars in public sector extension alone.

Good luck with your project.

Sincerely yours,

Harold

Harold R. Baker
Professor of Extension

HRB/amb

MAR 11 1986
AGRICULTURAL CANADA
LANDS SE

WHERE FARMERS GET INFORMATION

by
Donald J. Blackburn

Presentation to the Food Processor's Fieldmen's Conference,
O.A.C. Agricultural Conferences, Arboretum Centre, University of Guelph

Wednesday, January 15, 1986

Dr. Blackburn is Professor, Department of Rural Extension Studies, Ontario Agricultural College, University of Guelph. The author is grateful for the assistance and suggestions for this paper provided by Ms. Lauranne Sanderson, formerly Research Associate and now an instructor at the Nova Scotia Agricultural College, Dr. W.S. Young, Professor in Crop Science and O.A.C. Extension Coordinator, and Mr. Harold Dodds, formerly Editor, Cattlemen Magazine and now Publisher, Public Press, Winnipeg.

WHERE FARMERS GET INFORMATION

Modern Agricultural Extension in the public, private, and voluntary sectors, are products of evolution and experimentation. Governor Talon, in Quebec in the 1660's, is credited with the first organized efforts of Agricultural Extension in Canada (if not all of North America). For nearly two and a half centuries before the first ag. rep. services were formally established by trial and error in Canada at the turn of this century, agricultural leaders laboured energetically if somewhat in vain to induce the rural population to improve its farming methods. These have been fields of rich toil! But how do these various sectors stack up today with farmers as sources of information and influence?

Farmers are known to use a wide variety of sources to obtain farm information. Many millions of dollars are spent annually in providing this information. Publicly supported research, extension and information services have greatly increased agricultural productivity. Research undertaken in Ontario by Brinkman[1] found a benefit cost ratio of 39.2:1 for agricultural research and extension since 1950 based on productivity gains.

Some controversy has arisen in recent years over whether present public extension efforts are meeting the needs of the total farm population. Hightower[2] contended that public extension services are focussed on large successful farms to the detriment of less affluent ones. Nolan and Lasley[3], in a recent paper in the Journal of Extension, concluded that criticism that extension programs are directed at "large successful" farmers is at least partially supported by their data.

Hepp and Olson[4] suggested, in their report on the information needs and sources of Michigan small farm operators, that there has usually been an assumption that the messages coming from the extension agent are of value to all farmers regardless of size. This assumption may not be valid. The content of the message is of critical importance. If it is not applicable to small farm situations, if it requires capital beyond the means of small farmers, if it requires management skills not possessed by the farmer, then the message is likely to be ignored by small operators. This may result in undue concentration of extension resources of well established farmers.

These criticisms of public Extension may not be entirely justified when we realize that public and private extension services seldom have sufficient resources to undertake all possible kinds of programs. There has been a basic rationale for Extension's focus on large successful farm operators. This type of farmer is more likely to make direct use of information sources, like the Extension service or the University, than other farmers. The two-step information flow theory puts forth the concept that farmers, who tend to be more exposed to outside information sources, transmit what they know to persons who are less exposed. Thus, these influential farmers provide an effective and cost-efficient

method of disseminating information for reaching less receptive farmers[5]. Friends and neighbours, and other local farmers, are a powerful source of information and support in decision-making on the farm.

It has also been observed that public Extension services frequently perform the function of information-wholesaler to agribusiness, agri-media, and private and public agency consultants at the same time that it has been a direct retailer of information to farmers. Farmers are often unaware of the contribution which Extension makes to the effectiveness of these other sources of information[6].

Let's look at some studies on the information sources of farmers.

Regan[7] surveyed a group of Perth County, Ontario, dairy farmers in 1968. Thirty-seven percent indicated that farm magazines constituted the best source of information for dairy farmers while television was preferred by 17 percent and radio was chosen by 16 percent; only 10 percent indicated the agricultural representative. He reported that the larger operators tended to have more contact with the agricultural representative than did smaller operators. The researcher concluded that there was no single best source of agricultural information chosen by the majority of these dairy farmers.

A 1972 survey by Info Results Ltd.[8], commissioned by Agriculture Canada, interviewed 451 farmers in B.C., Alberta, Saskatchewan, Ontario, Quebec and Nova Scotia. Farm magazines were the source most often used by farmers for obtaining market outlook information when compared to daily and weekly newspapers, government pamphlets and bulletins, radio, television, company fieldmen, merchant and mill operators, neighbours, and government extension personnel.

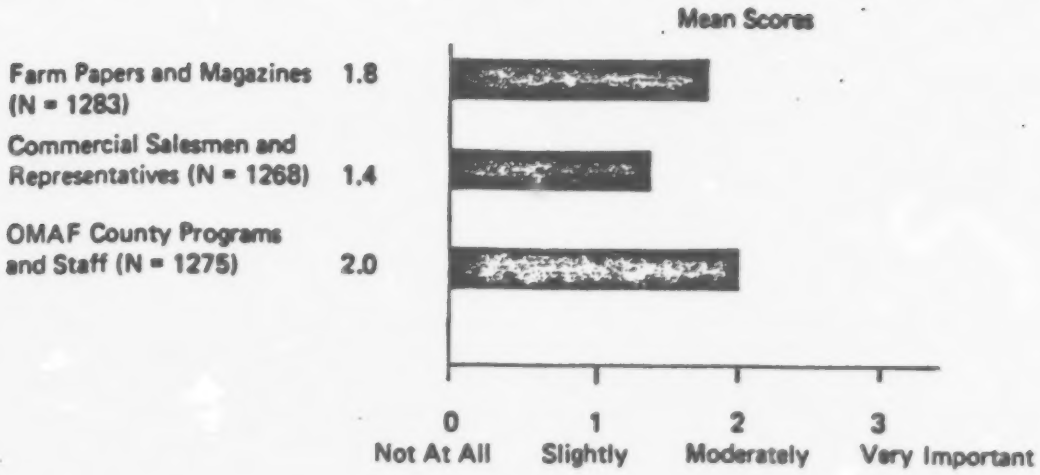
The Country Guide[9] surveyed 442 farmers in Eastern Canada, and 863 in Western Canada, regarding their best source of farm information. Farm magazines were rated number one over company bulletins, government representatives, radio, television, and weekly newspapers.

Napier[10], et al. conducted a study, in 1976, to identify information use patterns and perceptions of a thousand rural Ohio residents. Respondents seeking agricultural information ranked the sources, in decreasing order of importance, as follows: farm magazines, newspapers, radio, neighbours, extension bulletins, county extension agents, books and television.

In 1977, a random sample of Alabama farmers were interviewed by Stallings and Harrison[11] regarding the kinds of information they used. Nearly 85 percent reported magazines as a source of at least some farm information. Other farmers were considered a good source by three-quarters of the farmers. Additional sources reported by over 50 percent of the farmers, in decreasing order of importance, were: the County Extension Office, newspapers, radio programs, fertilizer dealers or sales representatives, television, and experiment station scientists.

A 1980 farm readership survey[12] of 1292 Southern Ontario farmers, which we conducted at the University of Guelph, attempted to determine the relative importance of farm papers and magazines, commercial and agribusiness representatives or salesmen, and County Ministry of Agriculture (OMAF) programs and staff as sources of farming information in general. Farmers considered the OMAF

Figure 1: Importance as Farming Information Sources



programs and staff to be slightly more important than farm magazines or papers. Agribusiness representatives were the least important of the three (although still fairly important). Larger, more affluent farmers considered OMAF more important than did other farmers.

We conducted another 1980-81 study[13] of a random sample of all Ontario farmers as well as a group of agri-leaders (chosen by the agricultural representatives in each county as farmers whose views on agricultural matters were well respected in the farming community). Compared to the random sample, representing the general farmer population, the agri-leaders were on the whole: younger; had farmed fewer years; tended not to be employed off the farm; belonged to more organizations, were better educated, farmed (owned and rented) considerably more acres; had higher gross farm sales; and tended to operate more labour intensive farm enterprises.

What did we find regarding the degree of importance of various sources of farm information? The majority of farmers considered the County OMAF Office and Staff programs to be moderately to very important as a source of information. Ninety percent of the agri-leaders, and nearly three-quarters of the random sample, so rated them as shown in Table 1. In the case of Ontario Ministry of Agriculture and Food publications and bulletins, similar trends were noted. Nearly four out of every five farmers in the random sample indicated that these publications were either moderately or very important to them; 92 percent of the agri-leaders rated these sources that highly.

Farm papers and magazines were also rated by a majority of farmers as being moderately to very important. Eighty-one percent of the random sample and 88 percent of the agri-leaders indicated these high levels of importance. In the case of television and radio programs an interesting distribution was noted. Although a majority felt that these sources were moderately to very important, a relatively large percentage in both samples indicated that television and radio programs were only slightly important or not important at all.

Table 1

PERCENTAGE DISTRIBUTION OF RESPONDENTS BY DEGREE OF IMPORTANCE OF VARIOUS SOURCES OF FARM INFORMATION

Type of Sample	Not Important	Slightly Important	Moderately Important	Very Important	Total %	Total N
County OMAF Office						
Random Sample	9%	18	37	36	100%	334
Agri-leaders	1%	9	29	61	100%	444
	$X^2 = 61.21$	P >.0001				
OMAF Publications and Bulletins						
Random Sample	6%	15	41	38	100%	341
Agri-leaders	1%	7	32	60	100%	450
	$X^2 = 58.80$	P >.0001				
Farm Papers/Magazines						
Random Sample	3%	16	41	40	100%	348
Agri-leaders	1%	11	47	41	100%	452
	$X^2 = 16.24$	P >.001				
Television and Radio Programs						
Random Sample	10%	27	35	28	100%	347
Agri-leaders	11%	35	38	16	100%	446
	$X^2 = 17.30$	P >.001				
Guelph (OAC) Faculty/Staff						
Random Sample	14%	23	31	33	100%	340
Agri-leaders	4%	28	33	36	100%	448
	$X^2 = 28.34$	P >.0001				

Table 1 ..... continued

Type of Sample	Not Important	Slightly Important	Moderately Important	Very Important	Total %	Total N
Banker/Farm Credit Officer						
Random Sample	24%	16	25	35	100%	342
Agri-leaders	26%	25	23	26	100%	450
	$X^2 = 14.48$	P >.002				
Agribusiness Representative or Salesmen						
Random Sample	16%	27	39	18	100%	344
Agri-leaders	14%	35	38	13	100%	452
	$X^2 = 6.84$	P = N.S.				
Neighbours						
Random Sample	5%	19	27	49	100%	344
Agri-leaders	7%	29	35	29	100%	449
	$X^2 = 34.34$	P >.0001				

Television and radio are likely to be extremely useful in creating awareness and interest but, with the exception of such areas as weather and market information, they may be less important in providing detailed information at the time farmers are deciding to adopt or modify decisions.

The University of Guelph was reported to be a moderately to very important source of information by a about two-thirds of the respondents. Proportionally more of the agri-leaders rated the University of Guelph highly, as was predicted, although agri-leaders from Northern Ontario rated this source lower than farmers from other parts of the province.

Bankers' and farm credit officers' ratings were somewhat more uniformly distributed across the categories with about one-quarter of the respondents rating them as not important as sources of information. The random sample placed a somewhat greater value on this source than did agri-leaders. The high cost of capital no doubt contributed to the importance rating assigned to bankers and farm credit officers.

Ratings for agribusiness representatives or salesmen tended to fall more into the middle range. A large percentage (43 to 49%) considered these sources to be only slightly important to not important at all. No significant difference in opinion towards agribusiness representatives or salesmen was observed between the random sample farmers and the agri-leaders.

Neighbours play a significant role as information sources and for counselling at the time decisions are made, as shown in this study and others, especially among the random sample farmers. This observation was not surprising when one considers that agrileaders tend to use more direct sources of information, such as agricultural representatives or university faculty, and the people whom they consider as peers may not live in the neighbourhood.

An examination of the rating of information sources by farmers in general indicated that, although the provincial extension services rated quite highly, there were differences in ratings based on types of farms and characteristics of the farmers (see Table 2). County Ministry of Agriculture and Food programs

Table 2

RATINGS OF COUNTY PROGRAMS BY CHARACTERISTICS OF FARMERS

Characteristics	Importance				Total	
	Very	Moderately	Slightly	Not at All	%	N
Fulltime & Part-time Farmers						
Full	42%	32	16	10	100%	830
Part	18%	27	24	16	100%	443
Farm Sales						
-$25,000	35%	28	22	15	100%	519
$25,000	44%	32	16	8	100%	670
Acreage						
50	35%	25	21	19	100%	210
51-100	32%	30	23	15	100%	251
101-200	40%	31	19	10	100%	396
201-300	45%	34	13	8	100%	184
301-900	46%	32	16	6	100%	205
901	19%	42	27	12	100%	26
Main Enterprises						
Mixed	30%	33	26	11	100%	148
Grain	35%	35	18	12	100%	169
Beans	35%	32	21	12	100%	57
Tobacco	53%	36	11	--	100%	36
Beef	32%	31	25	12	100%	326
Dairy	50%	28	15	7	100%	259
Pork	41%	31	15	13	100%	95
Poultry	40%	28	20	12	100%	25
Fruit/Veg.	52%	23	12	13	100%	83
Total	38%	31	19	12	100%	1275

Table 2 ..... continued

Characteristics	Importance				Total	
	Very	Moderately	Slightly	Not at All	%	N
Age						
40	39%	32	19	10	100%	255
40-49	40%	31	19	10	100%	355
50-59	40%	31	19	10	100%	379
60	36%	31	19	14	100%	252

were rated more highly by fulltime farmers than by part-time farmers. Forty-two percent of the fulltime farmers rated these programs as very important as compared to only 18 percent of the part-time farmers.

County OMAF programs were also rated somewhat higher by farmers with higher annual gross farm sales. Forty-four percent of the farmers, whose annual gross farm sales were $25,000 or more, rated the county programs as very important compared to 35 percent of the farmers whose gross sales were lower.

As the acreage of farms increased there was also a tendency for the rating of the importance of county programs to increase at least until the very high acreage farms. You will note that about one-third of the farms with acreages of 100 acres or less rated the programs as very important while 46 percent of the farmers whose farms were between 300 and 900 acres indicated this rating. Very large farms, by Ontario standards, rated the county OMAF programs somewhat lower.

There were also some differences in rating of county programs based on the main enterprises of the farms. Ratings were highest for farmers with tobacco, dairy, and fruit & vegetable enterprises. Ratings were lowest for farms with grains, beans, and beef enterprises.

Very little difference was noted in county OMAF program ratings based on the age of the farmers.

An extremely interesting study of information needs and sources of large commercial family farms (those with gross sales of $40,000 or more in 1974) was undertaken in 1977 and 1978 in the United States by a National Extension Study Committee. Each of the farmers in this national sample of commercial family farms was asked,in a mail questionnaire, what kinds of information was of greatest value to him in operating his farm and in planning for the future. Let me abstract some of their findings[14]. Table 12 reports the number of farmers ranking the different classifications either first or second. Marketing and production technology were each ranked as the most important by 26 percent of the farmers. Weather was third with 16 percent, followed closely by Business Management with 14 percent. Purchasing Inputs and Farm Policy were considered of less importance. Only one percent of the farmers thought public policy (other than farm) was of greatest value.

Table 12

KIND OF INFORMATION NEEDED

Marketing	26%
Production Technology	26%
Weather	16%
Business Management	14%
Purchasing Supplier	9%
Farm Policy	7%
Public Policy (Non-Farm)	1%

N = 1057

Farmers were then asked where, or from whom, they get assistance in these various information areas. Table 13 shows the most important sources of Production Technology information. Extension and Universities were listed as the most important source of information in this area by one-third of the farmers. One-fourth considered farm magazines a most important source. Input Suppliers were also important but less than farm magazines. Neighbours and Consultants (consultants including several different professionals including lawyers, accountants, and ag. lenders) were of minor importance.

Table 13

PRODUCTION TECHNOLOGY INFORMATION

Extension and Universities	33%
Farm Magazines	24%
Suppliers	16%
Neighbours	6%
Consultants	4%
A S C S	3%
Other Sources	14%

N = 860

Farmers listed a number of sources of information on marketing but only three -- marketing firms, farm magazines, and radio & television -- were continually ranked highly. While farmers considered xtension and universities an important source of information on production technology, few considered this to be the case for marketing.

Table 14

MARKETING INFORMATION

Marketing Firms	25%
Farm Magazines	18%
Radio and Television	15%
Extension and Universities	7%
Consultants	6%
Neighbours	6%
Newspapers	4%
Market Reports	4%
Suppliers	3%

N = 791

Table 15 shows that farmers depend upon suppliers as the major source of information on purchased supplies. In fact, in all the different classifications of kinds of information, no other source was reported by as many farmers (44 percent). As with marketing, Extension and universities were not considered a very important source to most farmers. Farmers valued neighbours' opinions on use of inputs more than they did their opinions on marketing or production technology.

Table 15

PURCHASING SUPPLIES

Suppliers	44%
Farm Magazines	19%
Neighbours	11%
Marketing Firms	5%
Extension and Universities	5%
Radio and Television	4%

N = 753

Almost one-third of the farmers indicated that consultants (ag. lenders, accountants, lawyers, etc.) were the most important source of business management information. Articles in farm magazines are an important source of information as are extension meetings, bulletins, and consultation. Few farmers reported dependence upon neighbours to advise on business matters of the farm.

Table 16
MANAGEMENT INFORMATION

Consultants	31%
Farm Magazines	21%
Extension and Universities	21%
Advisory Services	6%
Experience	5%
Neighbours	3%
Other Sources	13%
N = 690	

In the case of weather, farmers in general reported the source from which they received weather information and not who generated the message. The Weather Bureau which generates the data and makes forecast was seldom mentioned. Radio slightly exceeded television as the most important source.

Table 17
WEATHER INFORMATION

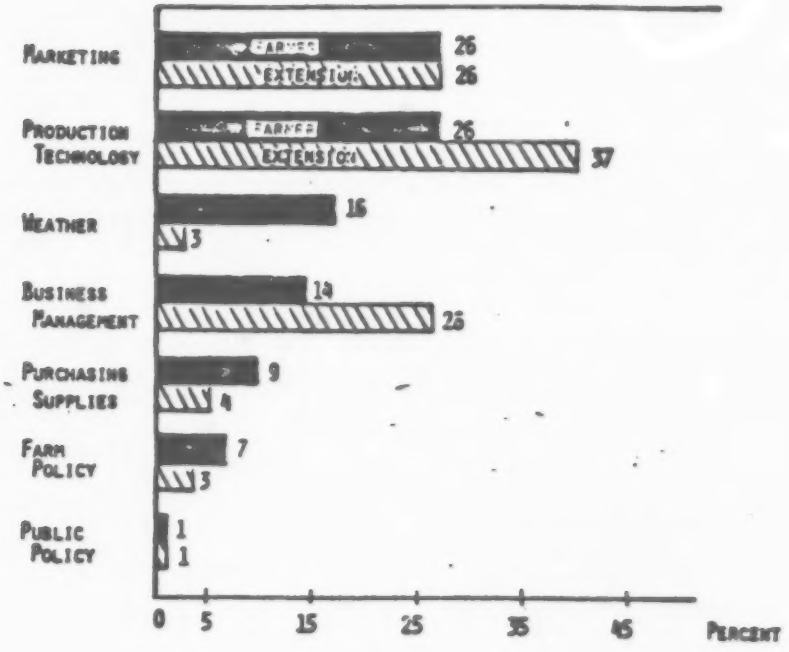
Radio	41%
Television	37%
Farm Magazines	6%
Newspapers	4%
Weather Bureau	4%
Other Sources	8%
N = 748	

Another part of the study was of particular interest. A sample of county, area, and state extension staff were sent a mail questionnaire asking for basically the same information farmers were asked. Instead of asking the extension worker what kinds of information were of greatest value to them, however, they were asked what kinds of information they thought would be of greatest value to the large commercial family farms.

The purpose of the survey of extension employees was (1) to get further insight into farmers' informational needs, and (2) to determine the difference between farmers' stated needs and extension employees' perception of these needs. Bar graphs are used to present a clearer comparison of how farmers and extension workers' perceptions differ on some questions.

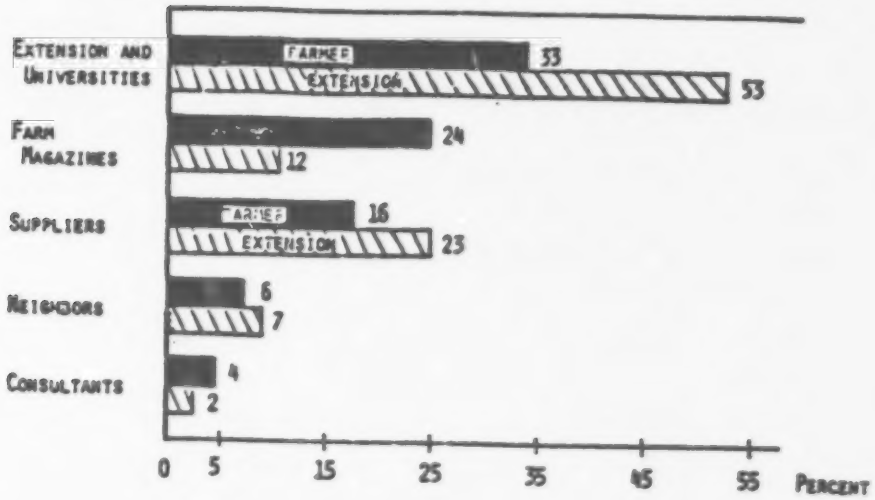
Graph 1. shows a comparison of farmers' and extension workers' perceptions of the kinds of information needed. The extension employees expressed the belief that production technology was the information of greatest value to farmers, followed by marketing and business management information. They felt purchasing supplies, farm policy, weather and public policy were of only minor importance. Farmers' responses (Table 12) were somewhat different. They ranked marketing as equal in importance to production technology. In the farmers' view, weather information was very important and business management probably less urgent than in the extension employee's opinion.

GRAPH 1: FARMERS' AND EXTENSION WORKERS' PERCEPTIONS OF IMPORTANCE OF INFORMATION IN THE FARM OPERATION



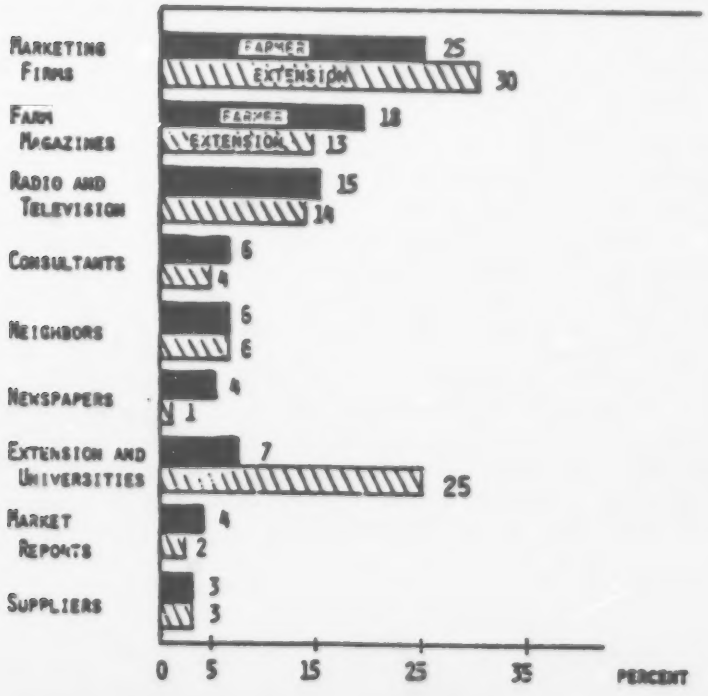
What about the most important sources of information? For production technology, as shown in Graph 2., extension workers perceived themselves to be of greater importance than did farmers. They also underestimated the value farmers placed on farm magazines and somewhat overstated the importance of suppliers. For the other sources of information the farmers and extension workers appeared to be in agreement.

GRAPH 2: FARMERS' AND EXTENSION WORKERS' PERCEPTIONS OF MOST IMPORTANT SOURCES OF PRODUCTION TECHNOLOGY INFORMATION



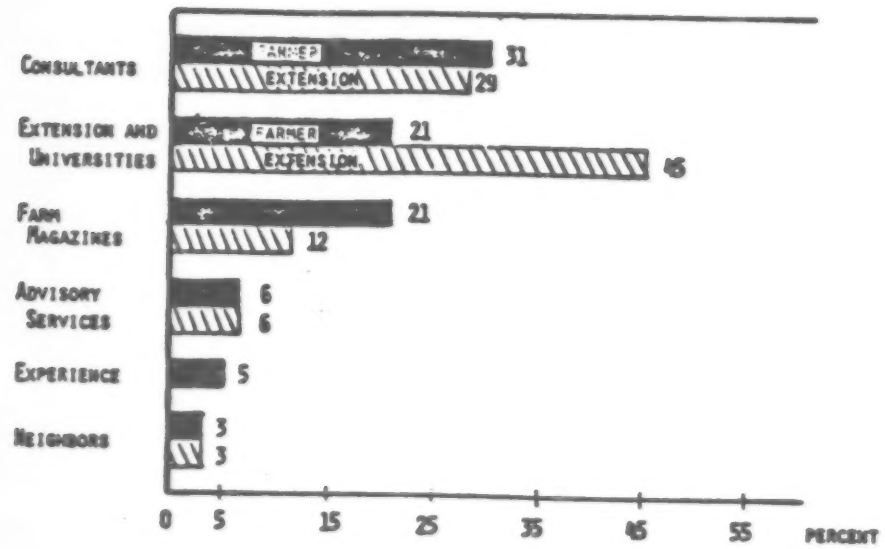
Graph 3. shows that the correlation between farmers and extension workers, on sources of marketing information, was very good except for extension as a source. Extension workers overestimated the value farmers would place on extension as a source of marketing information.

GRAPH 3: FARMERS' AND EXTENSION WORKERS' PERCEPTIONS OF MOST IMPORTANT SOURCES OF MARKETING INFORMATION



Most important business management information sources, as shown in Graph 4., is ranked very similarly by the two groups, except for the greater value placed on Extension as a source of information by extension workers.

GRAPH 4: FARMERS' AND EXTENSION WORKERS' MOST IMPORTANT SOURCES OF BUSINESS MANAGEMENT INFORMATION



There was a tendency for extension workers to have a slight bias towards themselves as an important source of information.

Summary

This report has reviewed several studies conducted at Guelph and elsewhere in Canada and the United States. Although one must be cautious in generalizing the results, it is likely that many similar observations would be noted in other areas beyond the study populations or regions.

Significant differences were observed in ratings of various information sources by a cross-section of farmers as compared to a group of agri-leaders (who were farmers whose views on agricultural matters are well respected in the farming community). Both groups rated the county or district extension staff and programs, as well as farm papers and magazines and ministry publications and bulletins, relatively highly as information sources. Agri-leaders rated county and district extension programs, and university faculty, somewhat more highly than did the corss-section or random sample of farmers. According to some U.S. studies[15], the large commercial family farmer perceives that the most important kind of information they need are (in decreasing order of importance): marketing and production technology, weather, and business management. The sources of information considered most important varied by kind of information. Extension and universities were rated as the most important source for production technology but of minor importance for marketing information. Farmers rated farm

magazines important sources for all kinds of information. Public Extension's indirect contribution by providing information to the press, and training business and agency personnel, largely goes unnoticed by farmers. Private sector agencies are becoming increasingly important as farm information sources particularly in technologies which are well established.

Farmers use a wide variety of sources in obtaining information to help in the operation of their farms. Although public extension workers aren't always the primary or the most frequently contacted source they do seem important as information disseminators and validators[16].

Since farmers consistently cited farm magazines as an important source of information, there is a continuing need for extension personnel to maintain effective contact and communications competence in this medium because of its influence and teaching potential.

Public Extension in many provinces has gradually de-emphasized production technology and increased attention on business management. Although the latter is particularly important in light of the extreme financial stress experienced by many farmers, U.S. studies suggest there is a danger that Extension might lose some of its positive image and public support since this subject field ranks considerably lower in importance in the perceptions of farmers during more normal times. This writer is not certain that this indeed is likely to be a problem in the foreseeable future. However, past experience would suggest a definite danger in expecting public extension staff, who normally function as educators in non-formal technology transfer processes, to be expected to also administer government programs (such as passing judgement on eligibility or enforcing requirements, etc.) and also maintain their educational rapport and influence with clients.

Some authorities have also suggested that public Extension has gradually moved towards less direct teaching of farmers as more time has been devoted to the development of materials and instruction of other agency and business people. While this may be more efficient, it may not enable Extension to maintain program visibility with farmers, legislators, and the general public. Efforts need to be pursued to ensure that the appropriate groups understand Extension's contributions.

Public Extension stacks up very well as part of the agricultural information system! But private and voluntary sectors (including magazines, newspapers, and other media), and friends and neighbours (one's reference group) are also powerful sources of information and influence!

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[15]Ibid.

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RECEIVED
DEPT.
EASTERN REGIONAL

APPENDIX I

GENETIC IMPROVEMENT PROGRAMS

Manitoba Agriculture is a leader in beef genetic improvement programs and in producer participation. Of the 60,000 calf records processed on the Federal-Provincial ROP Program, over 28 percent came from Manitoba herds (see Figure 1), even though Manitoba has only 11 percent of the Canadian cattle population. The Federal-Provincial ROP Program is integrated and extended through other programs; Manitoba's seven recognized bull test stations (which test close to 1,000 bulls annually), the "Triple P" program, the Premier Breeder Awards, Beef Consult, in the past through Agro-Man (Douglas and Interlake Heifer Projects), now through ERDA (Manitoba Beef Productivity Improvement Program, the Genetic Impact Evaluation Program, Douglas feedlot and other related projects), and less formally through regional and local demonstration projects set up by specialists and agricultural representatives.

The following is a brief outline of each of the four related genetic improvement programs offered by Manitoba Agriculture.

1) Federal-Provincial Record of Performance Program

ROP or the home test is a beef cattle performance recording program that can be used by cattlemen to improve the capability of their cattle to become more efficient, productive and profitable. It is used by cattlemen to evaluate within their own herd, how their cattle perform for traits of economic importance.

Within Manitoba Agriculture, there are three major areas of staff involvement:

a) Coordination of Program
   - primarily an Animal Industry concern
   - responsible for overseeing the delivery of the program to producers
   - maintenance of a provincial data base, i.e., individual producer files, provincial averages and summaries, annual reports (when possible), etc.
   - responsible for seeing that the program meets the needs of the producers
   - liaisor with federal officials, provincial staff from out-of-province, regional staff of Manitoba Agriculture and with Manitoba cattle producers
   - provision of technical expertise to on-farm application of program, in consultations with staff, for program revisions and expansion and for extension activities that result from the program, i.e., Manitoba Advisory Board for Beef Cattle Improvement, Genetic Impact Evaluation

b) Extension activities related to program
   - coordinated approach between regional and central staff
   - promotion of program and education of producers
   - primary concern is to facilitate producers in the understanding of the records and proper utilization of the information

c) Weighing services provided by Manitoba Agriculture
   - exclusively a regional service
   - provides these producers who do not have access to a scale - with one, and if requested, supervision of weighings
   - help producers to fill out forms correctly and maintain their records
   - provide assistance in utilization of records
   - major extension opportunity for department

ROP - What has been accomplished

Participation in the Beef ROP Home Test Program over the years 1972 to 1985 is outlined in Table 1.

Regional participation throughout the province in 1984 is outlined in Figure 2.

Breakdown of ROP clients by cow herd size for 1983, 1984 and 1985 is given regionally in Figure 3.

Breakdown of number of herds and calves at weaning on a breed basis is given in Figure 4.

Summary of number of calves weighed and the genetic improvement in adjusted weaning and yearling weights is given in Table 2 and Figures 5 and 6 for the year 1957-1985.

Example of improvement within a breed is given in Figure 7.

ROP has facilitated the growth of individual breed association programs: i.e.,
Hereford Association (THE) - 44 herds - 2,523 cows in inventory.
Charolais Association (CHARM) - 51 herds - 1,410 cows in inventory.
Simmental Association - 526 active members in Manitoba who utilize performance records.

2) Manitoba Bull Test Stations

Presently seven recognized test stations throughout the province. Aim is to promote the use of top-performing and reproductively superior bulls in Manitoba's commercial and purebred beef herds. Table 3 illustrates the growth of bull testing at the Douglas bull test station (this growth is also illustrated in the attached graph).

In 1986, the following stations are offering a recognized station test program for Manitoba bulls:

Station	No. of Consignors	No. of Bulls
Douglas	145	550
Blonde d'Aquitaine	12	36
Limousin	14	45
McKnight's	27	70
Red Power	8	70
Interlake	53	163
Northwest	48	108
Total	307	1042

Results for 1984-85 test year are presented in Table 4.

Currently in any given year, close to 1,000 yearling bulls are performance tested for post weaning gain. Top gaining, reproductively sound bulls are identified for sale to Manitoba beef producers.

Manitoba Agriculture encourages producers to performance test bulls by giving a $50 grant for each bull starting test. Producers must be on a recognized performance recording program to receive grant.

1984-85 - 427 eligible bulls - $21,350
1985-86 - 600 estimated eligible bulls - $30,000

3) "Triple P" - Manitoba's Young Beef Sire Progeny Proving Program

Purpose is to identify Manitoba's genetically superior young purebred beef sires by the performance of their progeny. Semen is offered to Manitoba beef producers from top gaining bulls out of Manitoba's bull test stations. Progeny from these bulls are compared to those from nationally proven reference sires and by so doing a progeny proof on the young bull is generated. Major emphasis of program include promotion and expansion of artificial insemination in the province, enrollment of cooperating herds on ROP and provide Manitoba beef producers with semen from bulls which they normally would not have access to or could afford.

The following table illustrates producer participation in the program since its inception.

Year	Number of Herds	Females Enrolled
1977	53	1400
1978	55	1383
1979	47	1267
1980	30	734
1981	37	952
1982	30	760
1983	31	843
1984	32	816
1985	59	1634

To date, (1985) 36 bulls have been offered as test sires. Proofs obtained on these bulls are listed in Table 5.

Performance of sons of PPP test sires at the Douglas test station are listed below:

Year	No. of Bulls	ADG Index*	WPDA Index**
1979	17	105	104
1980	25	107	105
1981	20	106	104
1982	17	94	98
1983	17	106	102
1984	19	104	103
1985	14	106	103

*ADG - Average Daily Gain
**WPDA- Weight Per Day of Age

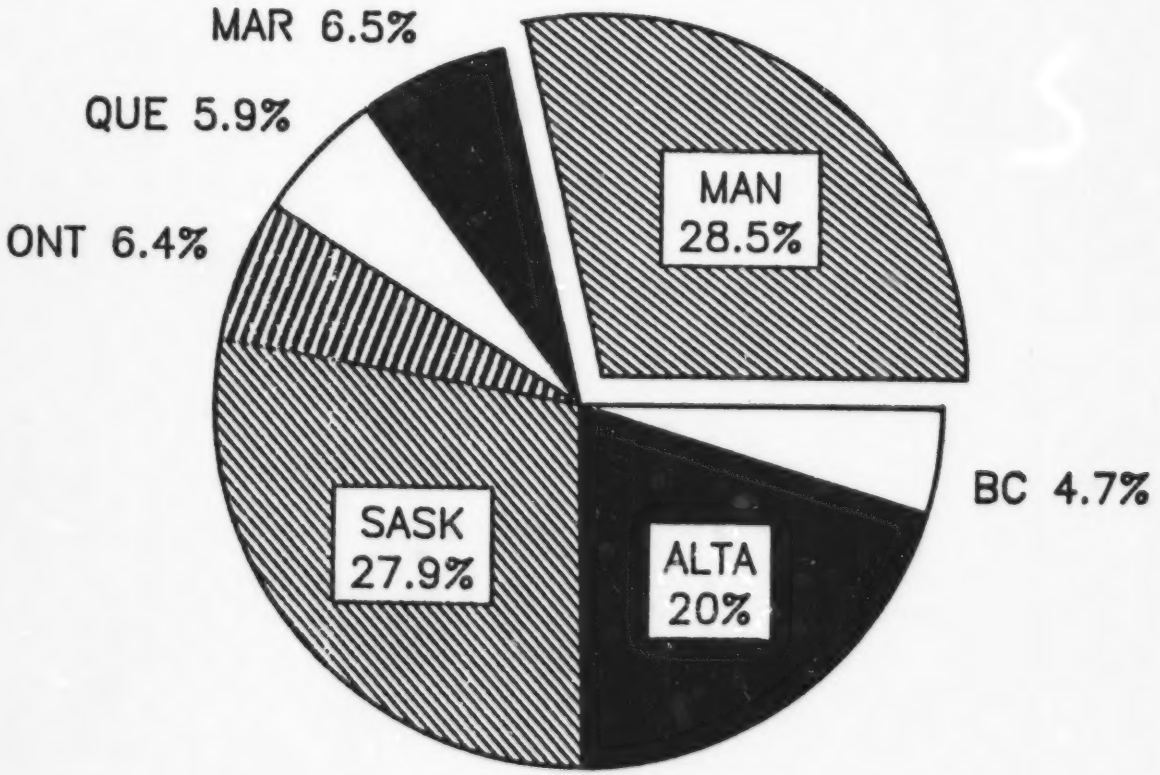
4) Awards Program - Premier Breeder

Beef ROP Awards Program was initiated to recognize outstanding achievement of individual beef producers who demonstrate effective use of production and performance records in achieving their breeding goals.

Initiated in 1979 with one award given to premier purebred and one to the premier commercial breeder. To date, a total of 12 awards have been presented.

FIGURE 1.

PROVINCIAL PARTICIPATION ON ROP BY CALVES WEANED 1984



CALVES

TABLE 1.

Participation in Beef ROP Home Test

Year	No. of Herds on ROP	No. of Calves Weaned	No. of Cows on Farms (000)	Cows on ROP as a % of No. of Cows
1972-73	216	8,660	394	2.0
1973-74	239	10,354	420	2.5
1974-75	398	16,614	455	3.7
1975-76	356	15,475	455	3.4
1976-77	395	13,706	419	3.3
1977-78	441	14,651	485	3.0
1978-79	436	14,042	435	3.2
1979-80	401	13,957	400	3.5
1980-81	387	15,571	390	4.0
1981-82	451	18,997	373	5.1
1982-83	412	15,343	348	7.6
1983-84	438	18,050	340	8.2
1984-85	392	16,937	325	9.2

FIGURE 2.

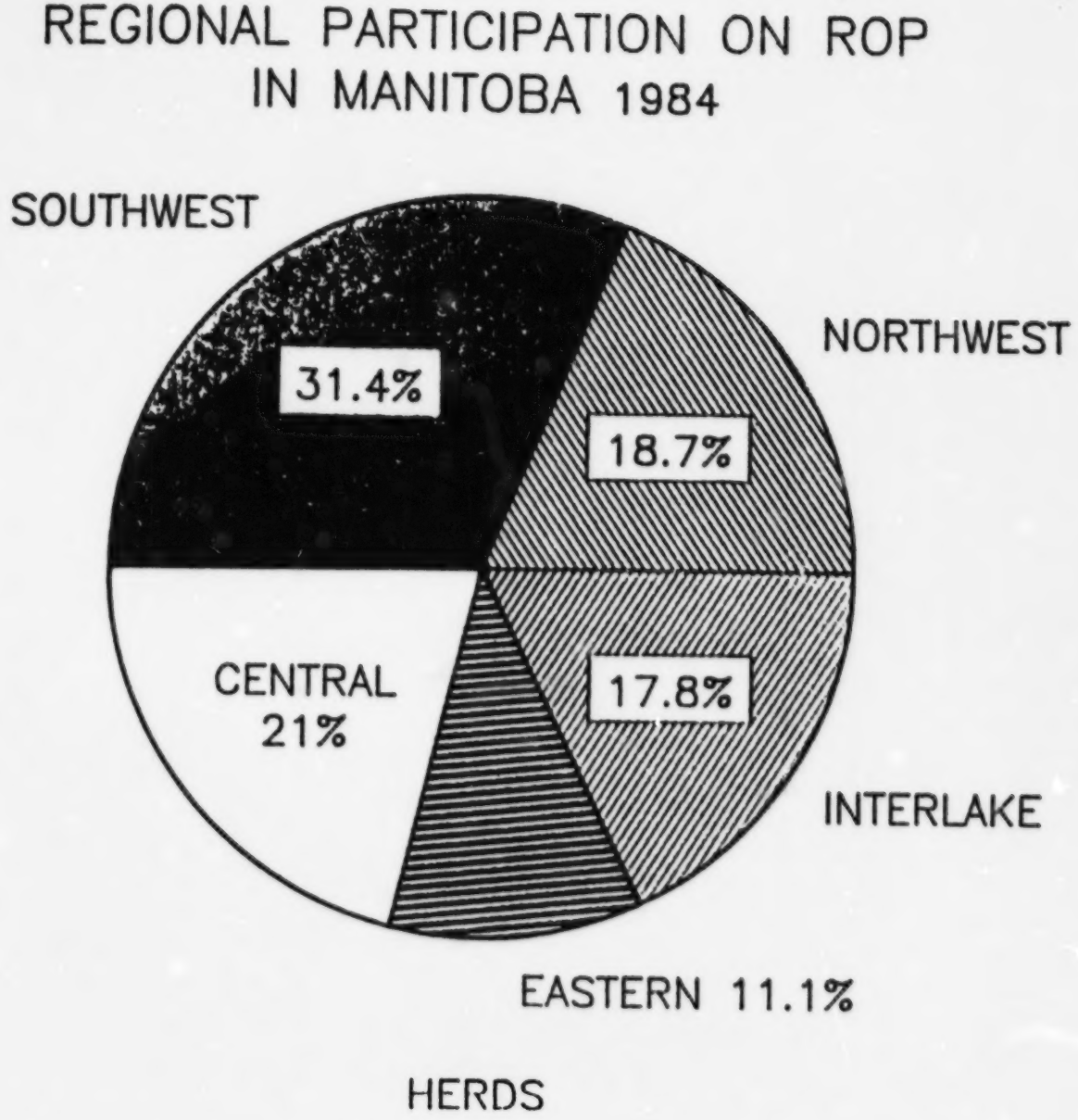

REGIONAL PARTICIPATION ON ROP
IN MANITOBA 1984
SOUTHWEST
31.4%
NORTHWEST
18.7%
CENTRAL
21%
17.8%
INTERLAKE
EASTERN 11.1%
HERDS

FIGURE 3.

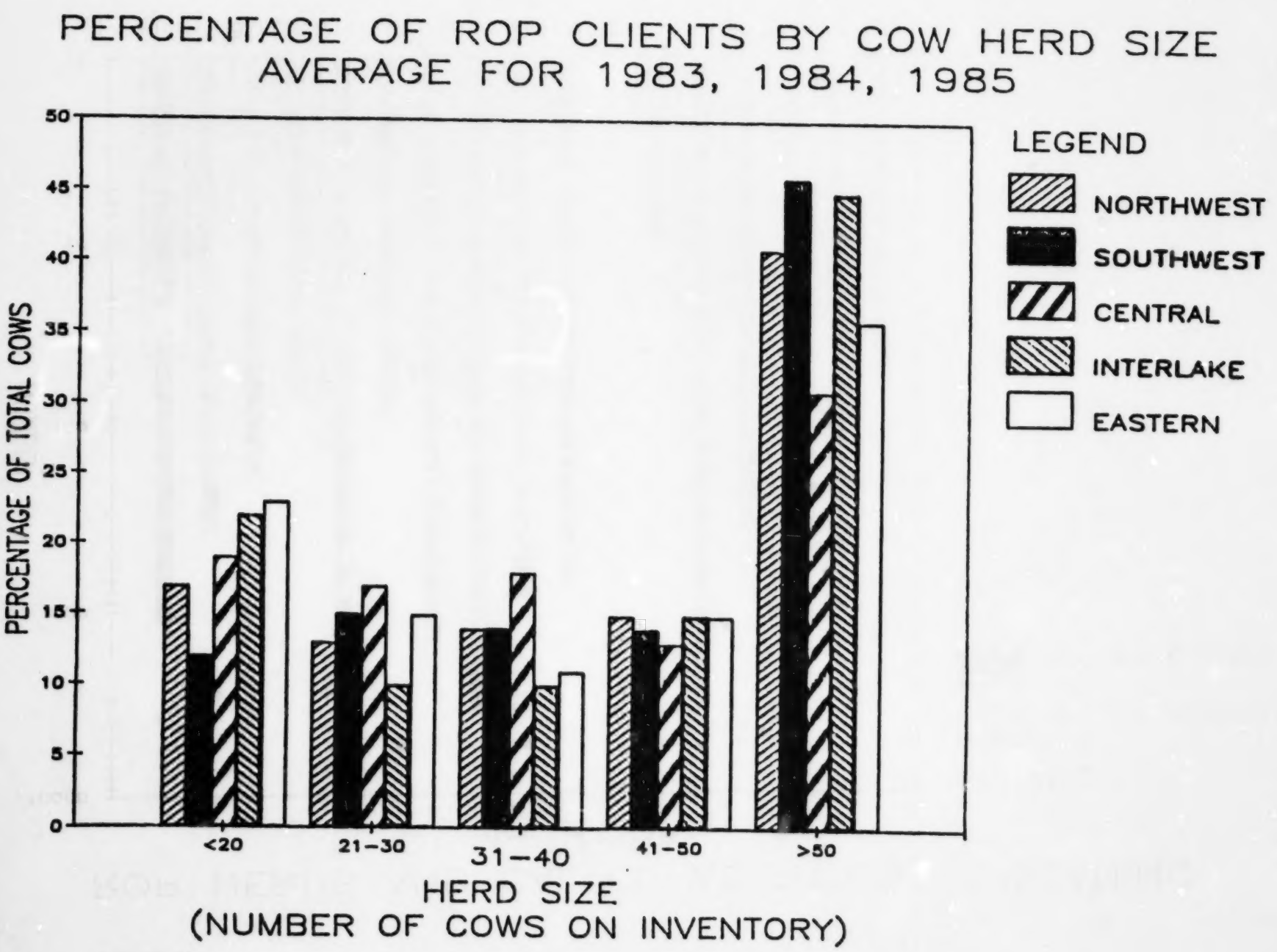

PERCENTAGE OF ROP CLIENTS BY COW HERD SIZE
AVERAGE FOR 1983, 1984, 1985
PERCENTAGE OF TOTAL COWS
50
45
40
35
30
25
20
15
10
5
0
<20
21–30
31–40
41–50
>50
HERD SIZE
(NUMBER OF COWS ON INVENTORY)
LEGEND
NORTHWEST
SOUTHWEST
CENTRAL
INTERLAKE
EASTERN

FIGURE 4.

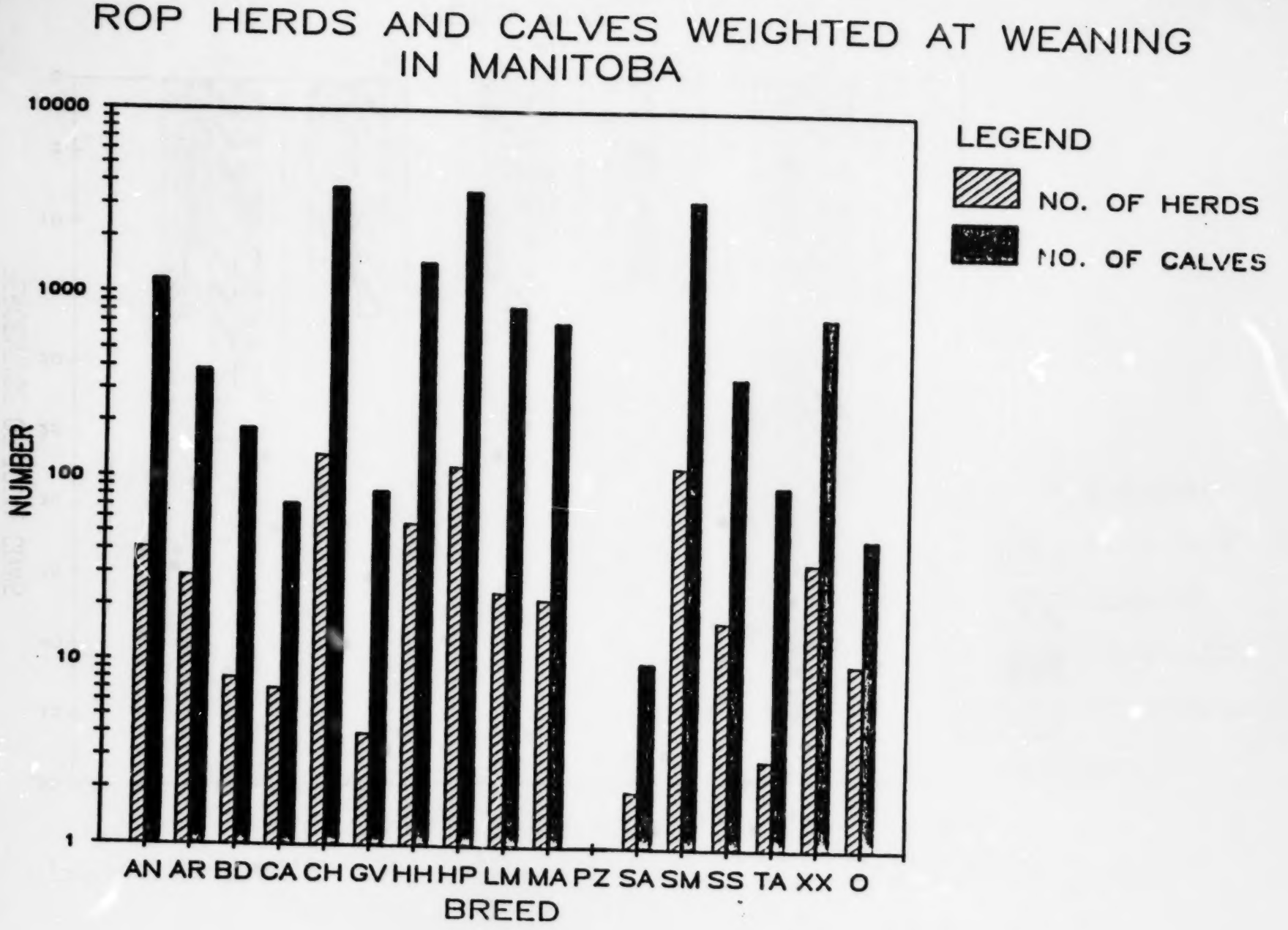

ROP HERDS AND CALVES WEIGHTED AT WEANING IN MANITOBA
10000
1000
100
10
1
NUMBER
LEGEND
NO. OF HERDS
NO. OF CALVES
AN AR BD CA CH GV HH HP LM MA PZ SA SM SS TA XX O
BREED

TABLE 2.

MANITOBA BEEF HOME-HERD PERFORMANCE TESTING

SUMMARY

Jan./86

Year	WEANING WEIGHT		YEARLING WEIGHT	
	No. Weighed	Ave. Adj. 200 Day Wt.	No. Weighed	Ave. Adj. 365 Day Wt.
1957-58	483	-	-	-
*1958-59	243	444	214	675
*1959-60	146	415	89	686
*1960-61	187	431	182	693
1961-62	570	449	360	695
1962-63	473	441	243	651
1963-64	905	438	580	670
1964-65	1256	447	659	701
1965-66	1833	449	938	735
1966-67	1909	446	965	713
1967-68	1945	455	958	743
1968-69	2413	463	1207	737
1969-70	5576	454	2616	724
1970-71	8493	447	3327	709
1971-72	10206	436	4037	701
1972-73	13094	449	4715	729
1973-74	15972	461	5532	720
1974-75	16614	447	8130	674
1975-76	16767	451	11224	673
1976-77	17892	460	12728	696
1977-78	17402	475	11879	721
1978-79	14027	488	11053	762
1979-80	13821	489	10980	780
1980-81	15447	519	11983	808
1981-82	15328	507	12186	779
1982-83	18446	505	11797	801
1983-84	17086	509	12498	804
1984-85	16937	513	8494	814

*Only purebred and calves recorded during these years.

Sources: Federal-Provincial Beef Record of Performance Annual Reports published by Agriculture Canada - Production and Marketing Branch 1957-76, 1980-85.
Data compiled by Animal Industry Branch, Manitoba Agriculture.

FIGURE 5.

CALVES ON ROP IN MANITOBA 1961—1984

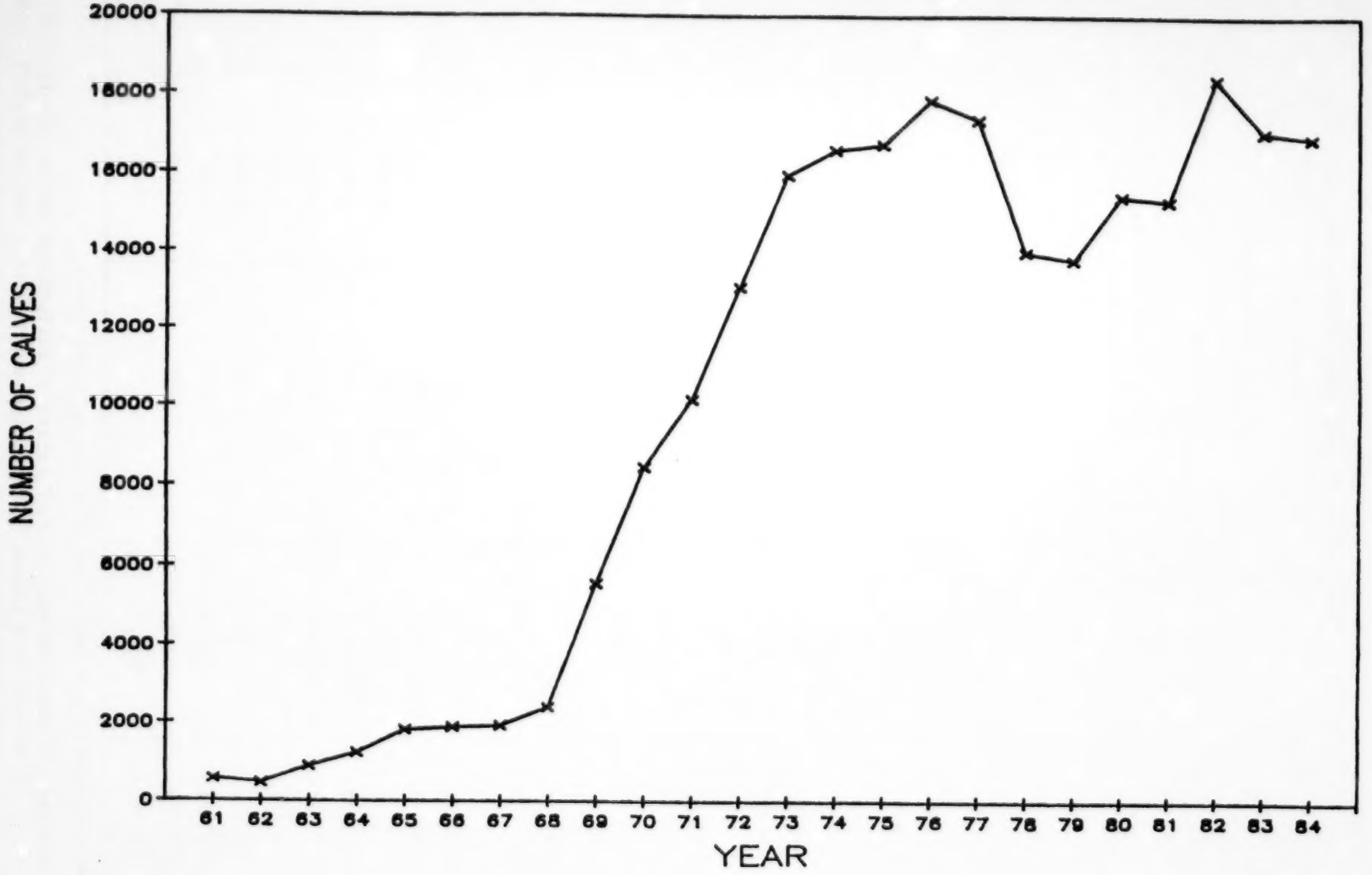


FIGURE 6.

WEANING AND YEARLING WEIGHTS ROP CALF CROP 1961—1984

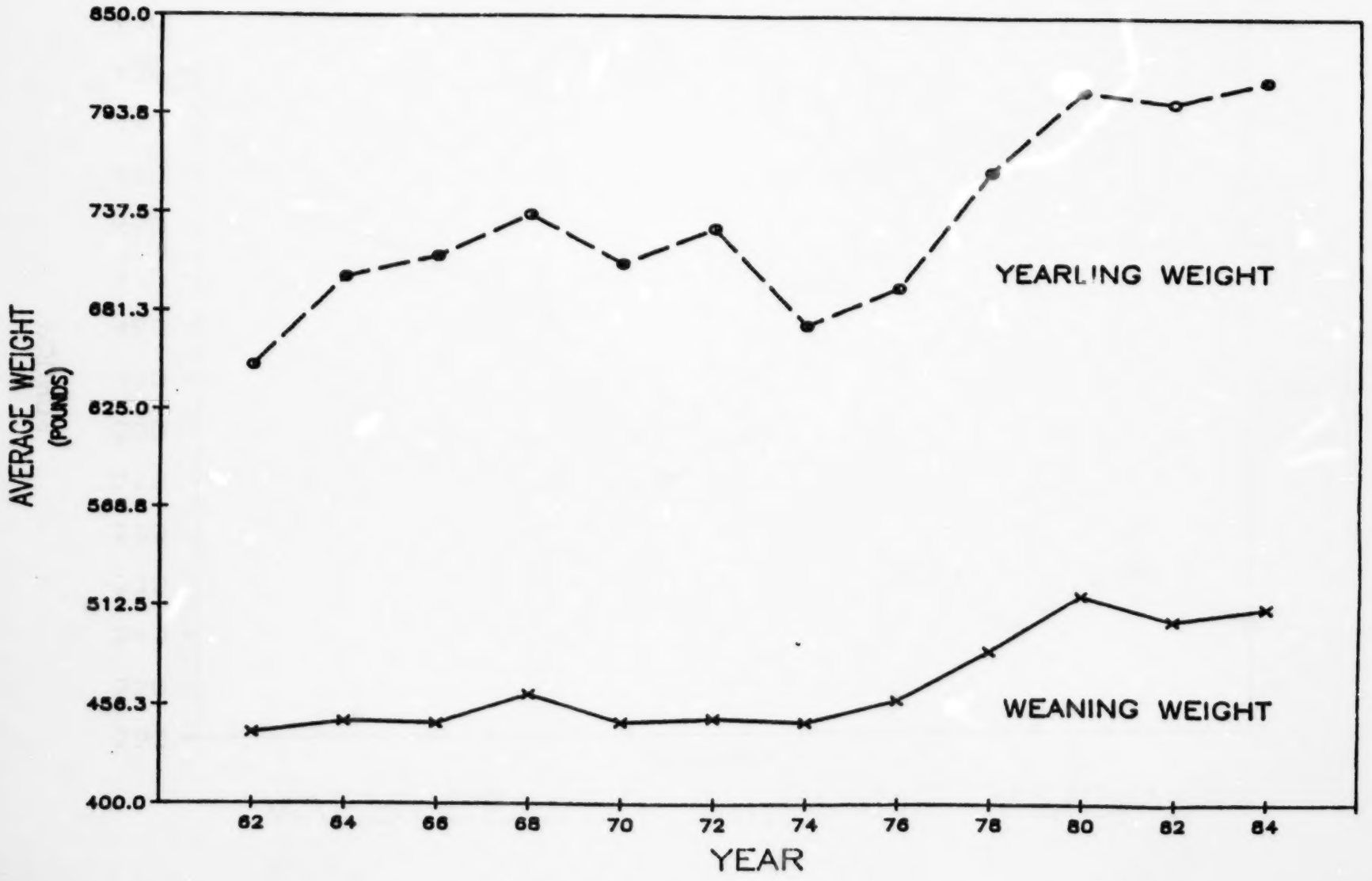


FIGURE 7.

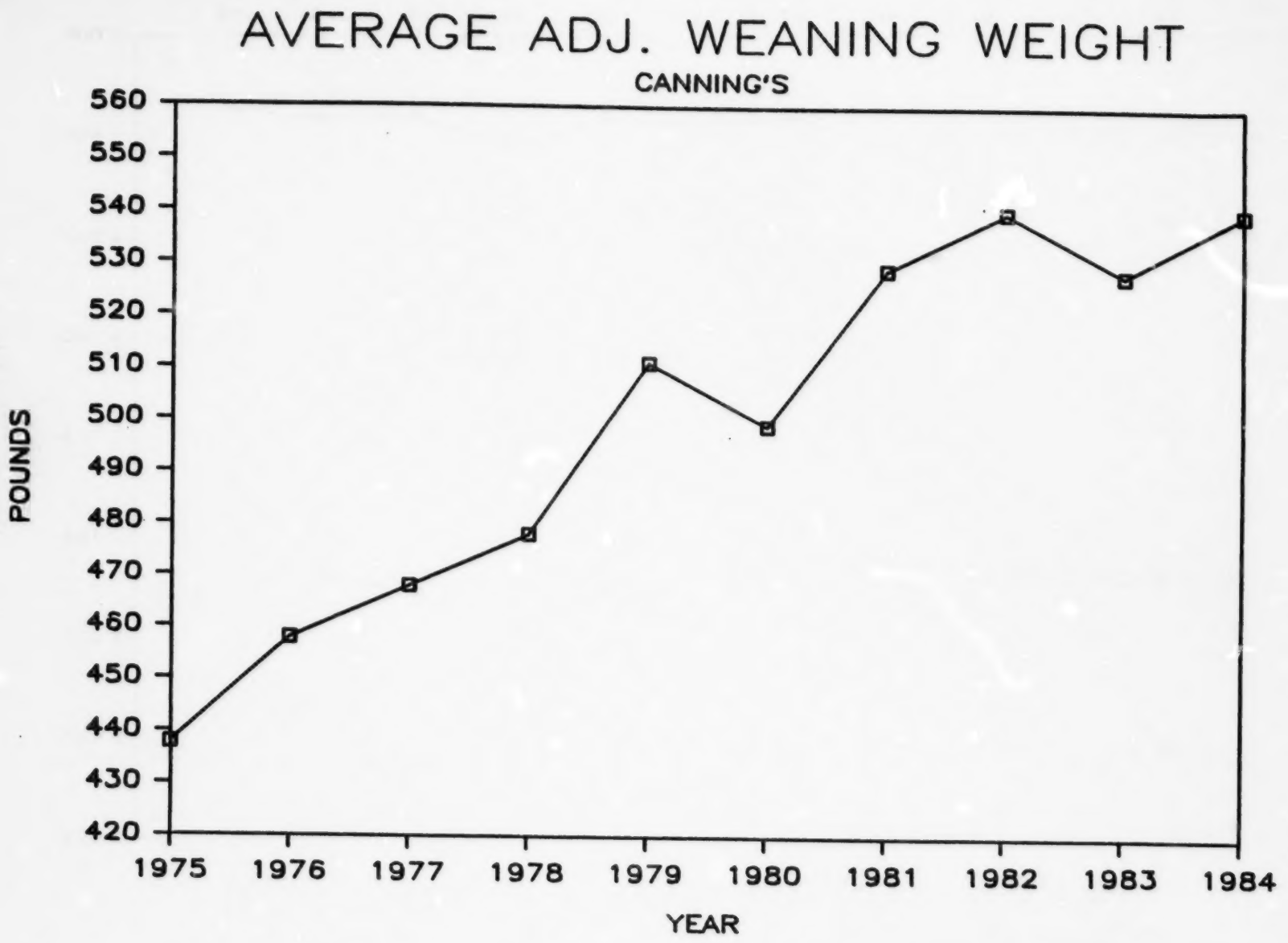

AVERAGE ADJ. WEANING WEIGHT
CANNING'S
POUNDS
560
550
540
530
520
510
500
490
480
470
460
450
440
430
420
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
YEAR

TABLE 3.

Manitoba Bull Test Station -- Douglas

Year	No. of Consignors	No. of Bulls
1975-76	72	269
1976-77	78	293
1977-78	92	353
1978-79	119	440
1979-80	136	528
1980-81	170	543
1981-82	138	507
1982-83	103	563
1983-84	145	555
1984-85	120	460
1985-86	145	550

Graph I PARTICIPATION IN MANITOBA BULL TEST STATIONS

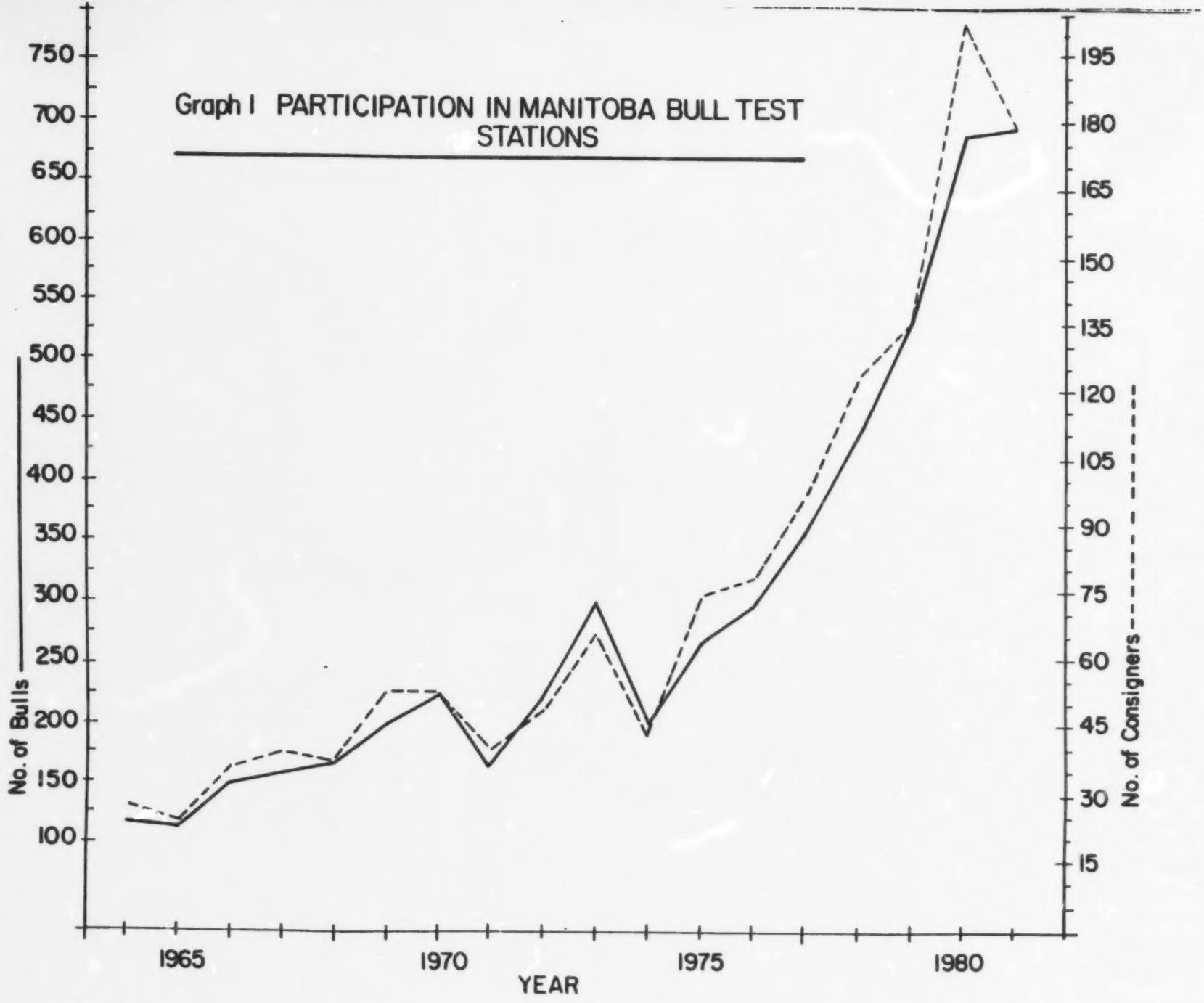


TABLE 4.

MANITOBA'S BULL TEST STATIONS
END OF TEST & SALE RESULTS 1984-85

Test Station/Breed	End of Test Results			Sale Results	
	No.	ADG	WPDA	No. Sold	Ave. Price
Manitoba	443	3.57	3.12	215	$ 1972
Angus	45	3.34	2.98	23	1659
Charolais	178	3.67	3.27	90	2052
Hereford	136	3.42	2.91	60	1766
Gelbvieh	12	3.85	3.12	9	1928
Simmental	54	3.79	3.36	27	2361
Shorthorn	18	3.41	2.96	6	2342
Interlake	196	3.47	3.07	97	1562
Angus	15	3.42	3.07	5	1370
Charolais	54	3.58	3.16	27	1610
Simmental	16	3.57	3.33	10	1347
Limousin	17	3.36	3.05	9	1891
Hereford	94	3.44	2.97	46	1535
Northwest	55	3.29	3.19	22	1757
Charolais	24	3.29	3.19	13	1807
Simmental	21	3.41	3.32	8	1681
Hereford	10	3.07	2.80	1	1700
Red Power					
Older Group	37	3.27	2.90		
Younger Group	18	3.79	3.06	30	1971
Maine Anjou	39	3.38	3.05	12	1446
Limousin	56	2.78	2.67	30	1206
Blonde d'Aquitaine	66	2.81	2.84	22	1544

TABLE 5.

Trait	Year					
	1980	1981	1982	1983	1984	1985
Calving Ease						
No. of bulls with proofs	7	9	7	14	15	17
No. breed average or better	4	8	6	11	14	13
Gain to Weaning						
No. of bulls with proofs	8	12	15	22	20	20
No. breed average or better	7	10	11	14	13	9
Gain to Yearling						
No. of bulls with proofs	8	12	12	21	18	17
No. breed average or better	7	8	9	16	13	8

To illustrate how a progeny proof works, consider the 1980 Hereford test sire - Britisher B Marquis 11K, bred and owned by Hay's Herefords of Pipestone, Manitoba. Table 2 illustrates his most recent progeny proof.